2009

AN EXAMINATION OF THE ASSOCIATION BETWEEN MIDDLE SCHOOL STUDENTS' PERCEPTIONS OF TEACHER INTERACTIONS, HOME-SCHOOL DISSONANCE, AND SCHOOL ATTACHMENT

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ABSTRACT OF DISSERTATION

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The Graduate School

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The purpose of this study was to investigate whether middle school students' perceptions of teacher interactions and home-school dissonance are predictors of school attachment. The study sought to determine if there were differences in students' perceptions of teacher interactions and home-school dissonance based on ethnicity, gender and/or grade level. This investigation is one of the first to explore the association between these variables.

Data for this investigation was obtained from a larger study where surveys were administered to over 800 racially diverse students in grades 6 through 8 in Language Arts classrooms in two public middle schools with diverse student populations. Participants completed the *Questionnaire of Teacher Interactions (QTI)*, the *Cultural Discontinuity Between Home and School Scale (CDBHSS)* and the *School Attachment Questionnaire (SAQ)*. Based on the study sample, the QTI and SAQ were revalidated and produced new scale structures.

Results of the multiple regressions, multivariate analysis of variance and post hoc tests revealed middle school students' perceptions of teacher interactions and home-school dissonance significantly predict school attachment. Teacher interactions perceived as critical/passive, pleasant, or demanding were those making significant contributions. Student perceptions of pleasant teacher interactions were the greatest predictor of school attachment. Eighth graders perceived teachers to be more critical/passive than sixth graders. Sixth grade students perceived teachers to be more caring than seventh and eighth grades. Further, results indicated African American students perceived more critical/passive teacher interactions than their Caucasian and Asian American peers.

While results indicate that home-school dissonance is a significant predictor of school attachment, results show that the impact of students' perceptions of home-school dissonance is minimized when combined with

teacher interactions. Implications for administrators, teachers, and university education departments are outlined. Recommendations for future research are also discussed.

KEYWORDS: School Attachment, Home-School Dissonance, Teacher Interactions, Students' Perceptions, Cultural Discontinuity

Ruby J. Stevens
Student's Signature

January 7, 2010
Date

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DEDICATION

I dedicate this work to my entire family—all of the descendants of the late K. C. and Emma Nell Stevens—those who have passed on and those who are still here at the completion of this work

"My child, listen to me and treasure my instructions. Tune your ears to wisdom, and concentrate on understanding. Cry out for insight and understanding. Search for them as you would for lost money or hidden treasure. Then you will understand what it means to fear the Lord, and you will gain knowledge of God. For the Lord grants wisdom! From his mouth come knowledge and understanding. He grants a treasure of good sense to the godly. He is their shield, protecting those who walk with integrity. He guards the paths of justice and protects those who are faithful to him. Then you will understand what is right, just, and fair; and you will know how to find the right course of action every time. For wisdom will enter your heart, and knowledge will fill you with joy. Wise planning will watch over you. Understanding will keep you safe."
Proverbs 2:1-11

"Trust in the Lord with all your heart; do not depend on your own understanding. Seek his will in all you do, and he will direct your paths."
Proverbs 3:5-6

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Chapter I

Introduction

Background

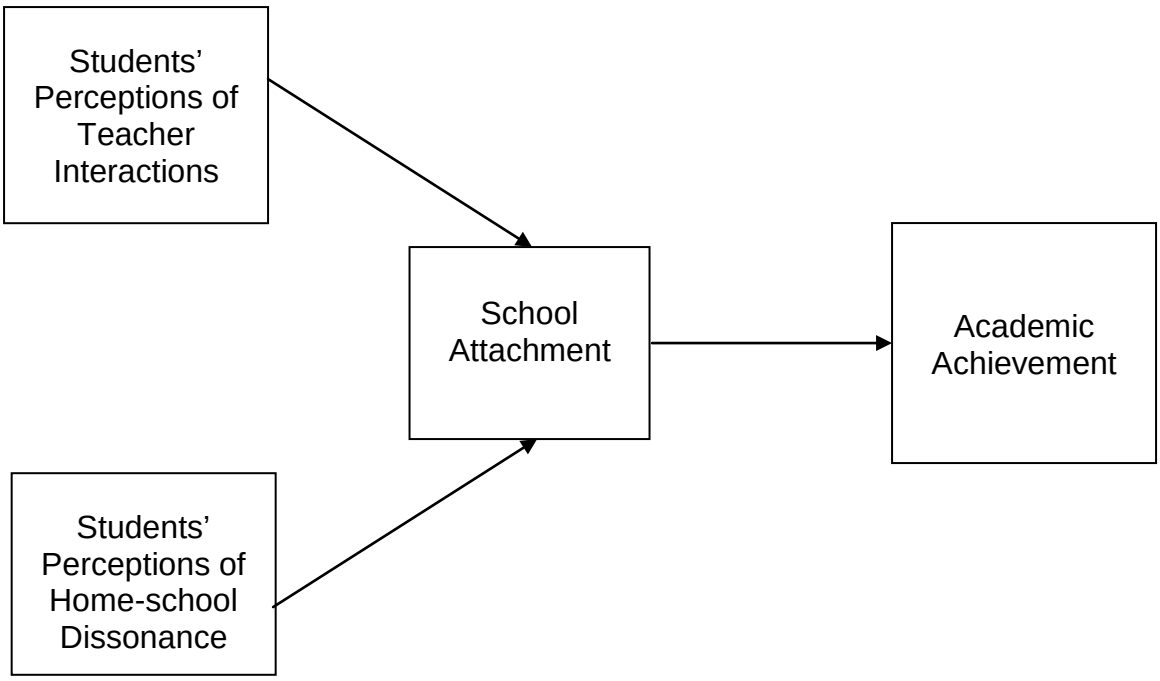
The middle school years are important for adolescents to learn about themselves, their relationships with others, and how to develop healthy strategies to meet the challenges of being successful in school (Gutman & Midgley, 2000; Way, Reddy, & Rhodes, 2007). There are many challenges facing students in middle school, some personal and some academic. At a time of economic unrest, a number of students are dealing with parents who have lost their jobs and, in many cases, their homes. Family financial stresses are added to the usual challenges students face everyday as well as changes in their physical appearance, doing well in school, getting along with their teachers, and being accepted by their peers. A positive middle school experience may help ease the impact of other influences on the lives of students.

Students' relationships with teachers and dissonance between home and school environments are two phenomena that have gained interest among researchers in recent years because they have been conceptually linked to student academic outcomes (Allen & Boykin, 1992; Baker, 2005; Ogbu, 1982; Teven, 2001; Thomas, Richmond, & McCroskey, 1994; Way, Reddy, & Rhodes, 2007). Existing research provides a link between academic achievement and school attachment (Battin-Pearson, Newcomb, Abbot, Hill, Catalano & Hawkins, 2000). School attachment is critical to positive experiences and successes in middle school and has been found to promote higher levels of academic

achievement (Battin-Pearson et al., 2000; Maddox & Prinz, 2003; Van Ryzin, Gravely, & Roseth, 2009).

Figure 1 illustrates current research findings of the relationships between the constructs of interest in this study. This investigation seeks to contribute to a gap in the literature by providing empirical evidence of home-school dissonance. It is one of the first studies to take the unique approach of examining whether middle school students' perceptions of teacher interactions and middle school students' perceptions of home-school dissonance predict school attachment.

Figure 1. Research findings of relationships between variables.



An examination of the classroom environment from the perspective of middle school students may uncover important relationships between students' perceptions and how attached students are to their school. The short-term goal

of this study is to determine if there is a relationship between students' perceptions of teacher interactions and students' school attachment. If evidence is found to suggest such a relationship, additional research will be conducted to identify more specific relationships and influences. For example, identifying specific predictors of school attachment in middle school students may provide teachers and administrators with information about interventions in the middle grades to increase school attachment, which may lead to an increase in academic achievement.

Statement of the Problem

Relevant research of similar concepts—such as school bonding, school belonging, and school connectedness—are included in this introduction because the terms, while different, are closely related to school attachment. Studies provide evidence that school attachment plays an important role in the success or failure of students (Mouton, Hawkins, McPherson & Copley, 1996). Further, existing research indicates that school attachment predicts whether students stay in school (Battin-Pearson et al., 2000; Maddox & Prinz, 2003; McNeely, 2005). School attachment is commonly defined as a sense of connection the student feels to the school and others at school (Brown & Evans, 2002; Libby, 2004). Brown and Evans conducted a study to examine the relationship between students' participation in extracurricular activities and their connection to school. Results indicated that students who participated in extracurricular activities were more connected to school. They found that European American students had the highest level of involvement in extracurricular activities while Hispanic students

had the lowest level of involvement. Maddox and Prinz (2003) conducted a review of existing theoretical and empirical research on school bonding over a period of about 30 years. They described school bonding in the context of how students feel about their school including whether they feel pride, comfortable, safe, and whether they feel a sense of belonging. They identified studies where culture, gender, and age were identified as significant moderators of school bonding. Diaz (2005) defined school attachment as a sense of belonging or feeling part of the school. Mouton, Hawkins, McPherson, and Copley described school attachment based on input from study participants as a sense of connectedness to the school through school activities and peer and faculty support. Students were administered the School Attachment Questionnaire (SAQ) to high school students to assess their level of attachment to school. The researchers conducted semi-structured interviews with students with the lowest attachment scores to determine how students perceived their lives at school. The qualitative data were analyzed and revealed that students with a low attachment to school perceived a low level of encouragement and support from school personnel and their peers. They also described themselves as isolated and lonely.

Battin-Pearson and colleagues (2000) tested five theories to predict low academic achievement with poor academic achievement as a mediating variable to dropping out of school before the tenth grade. The study included three measures to assess students' latent attachment to school. Researchers found low school bonding, gender and ethnicity to be significant predictors of low

academic achievement. McNeely (2000) identified two indicators of school connectedness for students in grades 7-12 using questions from the National Longitudinal Study of Adolescent Health (Add Health). Confirmatory factor analysis was used to test the correlation between social belonging and students' relationships with their teachers. When taken alone, both variables are significantly associated with student GPA. When combined, social belonging is no longer associated with GPA. Identifying specific predictors of school attachment, therefore, may increase the academic achievement of middle school students and may help keep them from dropping out.

Libby (2004) identified attachment, bonding, connectedness, and engagement as other constructs to measure students relationships to school. Booker (2004) defines school belonging as students feeling important and respected at school and indicates that school connection is directly related to interpersonal interactions in school. School bonding is defined as connections students have to their schools and other aspects of their academic lives (Maddox & Prinz, 2003). Van Ryzin, Gravely, and Roseth (2009) define school belongingness as students' feelings of being accepted and supported by others and school engagement as students' level of engagement in classroom activities. School connectedness was used by McNeely (2005) to describe students' perceptions of belonging, respect, safety and feeling cared for at school. The researcher identified social belonging and students' relationships with teachers as subdomains of school connectedness.

In this study, school attachment will be used to identify the construct being discussed. School attachment is being defined as the degree to which students like their school, feel connected to their school, and feel that people at school care about them.

Researchers indicate school attachment becomes increasingly more important to school adjustment and overall well-being as students reach adolescence (Van Ryzin, Gravely, & Roseth, 2009). The researchers assessed school belongingness in two stages using two subscales from the Classroom Life Scale—teacher personal support and teacher academic support—which measures students' perceptions of support from their teachers and peers over a period of four to five months. Using structural equation modeling (SEM), the researchers found that students' perceptions of belongingness have a positive impact on engagement in learning and, in turn, on their overall adjustment. While relationships between specific aspects of the school environment are difficult to measure and relationships are complex, researchers believe school attachment and academic successes are interconnected (Johnson, Crosnoe, & Elder, 2001). Students who feel attached to school are more likely to achieve at higher levels and those who are successful academically are less likely to drop out (Barber & Olsen, 1997; Battin-Pearson et al., 2000). Further, existing research indicates a relationship between school attachment and academic outcomes (Gutman & Midgley, 2000). The researchers examined the effect of protective factors such as perceived teacher support and school belonging on the GPA of middle school students. The study participants were from a larger longitudinal study examining

the effects of classroom and school characteristics on the psychological and academic outcomes of students. Questionnaires were administered to assess perceived teacher support and feelings of school belonging. Results of a correlational analysis indicated that school attachment was significantly correlated with the GPA of fifth and sixth grade students finding that the students with higher school attachment scores also had a higher GPA than students with low school attachment scores. They also found that middle school students' GPA declined as they transitioned from fifth grade to sixth grade. These findings support the importance of identifying specific predictors of school attachment in middle school students.

Student perceptions. Adolescents perceive, interpret and respond differently to various aspects of the school environment (Meece, Anderman, & Anderman, 2006). Research of students' perceptions, interpretations, and responses to their learning environment may provide teachers and administrators with useful information to develop programs and interventions to help increase student success. Students' perceptions of teacher interactions may establish a foundation for the types of relationships they develop with their teachers. Research indicates middle school students' perceptions of teacher interactions vary by race, gender, and grade level; and the way students perceive teacher interactions may impact other outcomes important to students' success, including students' attachment to school (Fraser & Walberg, 2005).

Existing research provides some evidence of how differences in students' perceptions of the school environment may impact school attachment. Booker

(2007) asserts that a lack of identification with the school environment—a problem believed to be more prominent for African American and other students of color—may be a precursor to students dropping out of school. This concept is sometimes called home-school dissonance. Kumar (2006) describes home-school dissonance as a difference or perceived difference in the values, beliefs, and norms of students' home and school environment. It is important to note that the difference may not actually exist, but if a student perceives a difference between home and school, the impact on the student may be the same. Baker (2005) identified conflict between home and school cultures as one of three reasons African American students are disempowered by the public education system in this country. The researcher asserts that students are influenced by the way they perceive they are treated in school and when they do not feel that they are being valued, they are more likely to experience low self-esteem and other negative reactions, one of which may be low or no attachment to school. If all students are to be successful, it is crucial that they have a strong attachment to school (Faircloth & Hamm, 2005). While existing research provides evidence of relationships between students' attachment to school and other variables, the factors that predict strong attachment to school in middle school students are still unknown (Booker, 2004; Fraser & Walberg, 2005; Gutman & Midgley, 2000; Libby, 2004).

Purpose of the Study

Researchers indicate a need for studying the nonachievement aspects of students' school experiences that may impact student success (Johnson, Crosnoe, & Elder, 2001). To date, there is a lack of research examining how students' perceptions of the classroom environment may predict school attachment (Gutman & Midgley, 2000). The purpose of this study was to investigate whether middle school students' perceptions of teacher interactions and home-school dissonance were predictors of school attachment. The study also sought to determine if there were differences in students' perceptions of teacher interactions and home school dissonance based on ethnicity, gender and/or grade level. This information would be useful for teachers and administrators as they plan programs to improve student success and school experiences.

This investigation is one of the first to explore the association between these variables. Specifically, the study seeks to answer the following questions:

1. Do middle school students' perceptions of teacher interactions and students' perceptions of home-school dissonance predict students' school attachment?
2. Are there ethnic and gender differences in students' perceptions of teacher interactions and home-school dissonance in middle school?
3. Are there grade level differences in students' perceptions of teacher interactions and home-school dissonance in middle school?

This investigation tests the following hypotheses:

1. Middle school students' perceptions of teachers exhibiting certain behaviors will predict students' school attachment. These behaviors are indicated below:
   a. Middle school students' perceptions of teachers exhibiting *leadership* behaviors will predict students' school attachment.
   b. Middle school students' perceptions of teachers exhibiting *helpful/friendly* behaviors will predict students' school attachment.
   c. Middle school students' perceptions of teachers exhibiting *understanding* behaviors will predict students' school attachment.
   d. Middle school students' perceptions of teachers exhibiting *student/responsibility freedom* behaviors will predict students' school attachment.
   e. Middle school students' perceptions of teachers exhibiting *uncertain* behaviors will predict students' school attachment.
   f. Middle school students' perceptions of teachers exhibiting *dissatisfied* behaviors will predict students' school attachment.
   g. Middle school students' perceptions of teachers exhibiting a*dmonishing* behaviors will predict students' school attachment.
   h. Middle school students' perceptions of teachers exhibiting *strict* behaviors will predict students' school attachment

2. Middle school students' perceptions of home-school dissonance will predict students' school attachment.
3. There are ethnic differences in middle school students' perceptions of teacher interactions and home-school dissonance.
4. There are gender differences in middle school students' perceptions of teacher interactions and home-school dissonance.
5. There are grade level differences in middle school students' perceptions of teacher interactions and home-school dissonance.

Chapter II

Review of Literature

The purpose of this chapter is to critically review literature relevant to this study. Herbert Walberg and Rudolf Moos are credited as leading the way in classroom environment research (Fraser & Walberg, 2005). Walberg developed the Learning Environment Inventory (LEI) scale to assess students' perceptions of the learning environment, and Moos developed the Classroom Environment Scale (CES). Perception studies in the classroom were adapted from Timothy Leary's 1957 Model of Interpersonal Teacher Behavior (MITB), originally designed to examine clinical psychology and psychotherapeutic settings (Wubbels & Brekelmans, 2005).

Student perception research has significantly advanced in recent years. Studies examining students' perceptions of their teachers and the classroom environment are now part of the topics studied (Fraser & Walberg, 2005; Goodenow, 1993 Van Ryzin, Gravely, & Roseth, 2009; Way, Reddy, & Rhodes, 2007). Jussim and Harber (2005) conducted meta-analyses discussing teacher expectations based on their power or effect on students. They found that the effects of teacher behaviors on students are more pronounced for low achieving students, low socio-economic status (SES) students, and African American students. Additionally, they found that the effect size increased in studies where students perceived differential treatment by their teachers. More often than not, the differential treatment was based on actual teacher behaviors or perceived behaviors.

Teacher expectations research began when Rosenthal and Jacobson (1968) took a random sampling of 20% of the students identified as those whom the teachers could expect to “bloom” during the course of the school year. The only differences in these students and the others, however, were in the minds of the teachers based on what they were told. All of the students were tested at the end of the school year. As a total student body, the children who had been identified as expected to make the most academic gain, did show more of a gain than the other students. Researchers concluded that the teachers had different expectations of the group identified, and their expectations had an impact on student achievement. According to Rosenthal (2002), teachers tend to give more differentiated feedback to students for whom they have high expectations. Specific teacher feedback is given based on the answers given by the student. For example, a teacher with high expectations for a student may not immediately move to the next student when an incorrect answer is given by the first student. Instead, the teacher may ask an additional probing question to encourage the student to think more critically. On the contrary, a teacher who does not hold high expectations for a student may immediately move to the next student when an incorrect answer is given by the first student. Additional student perception research may provide important information about how students’ perceive the interactions of high expectation teachers.

Although there are some disagreements in the literature about the degree to which teacher expectations affect student achievement, most agree that there is some relationship between teacher expectations and student achievement.

Another area of uncertainty is which group of students is most affected by teacher expectations. Future research may clarify disagreements and answer these questions.

In 1993, Theo Wubbels and Jack Levy developed the Questionnaire on Teacher Interactions (QTI) based on Timothy Leary's Model of Communication (Wubbels, Levy, & Brekelmans, 1997). The researchers used Leary's Model for interpersonal relationships to design an interaction teacher behavior model for education (Wubbels, Creton, & Hooymayers, 1985). The QTI was selected as the instrument in the current study to assess students' perceptions of teacher interactions in the classroom.

Researchers have identified student-teacher interactions as an important aspect of research on classroom learning environments and supportive teacher-student relationships as key components in promoting positive student outcomes (Fraser & Walberg, 2005; Rosenfeld, Richman, & Bowen, 2000). Those outcomes are not merely restricted to student academics but extend to other factors which may be directly or indirectly related to academic outcomes. The classroom is a complex environment with much to be learned about the influences of various factors on academic and non-academic outcomes. Further, there is a lot to be ascertained about the perceptions of all individuals who are part of the classroom environment.

School Attachment

School attachment is a non-academic factor which has been found to be related to student academic outcomes (Diaz, 2005; LeCroy & Krysik, 2008;

Marcus & Sanders-Reio, 2001; Mouton, Hawkins, McPherson & Copley, 1996). The definition of school attachment is not consistent among studies, but the commonalities among the definitions involve how connected students feel to their school and others at the school (Brown & Evans, 2002; Diaz, 2005; Libby, 2004; Maddox & Prinz, 2003; Mouton, Hawkins, McPherson, & Copley, 1996). In a study of school attachment in middle and high school Latino/a students, Diaz found a positive correlation between students who have a strong attachment to school and the likelihood of those students engaging in positive, socially desirable behaviors rather than negative, delinquent behaviors.

In a study of high school students in grades nine through twelve, Booker (2007) also identified feelings of loneliness and isolation as traits associated with low attachment to school and as traits contributing to academic, social and behavior problems. As part of a larger study, the students were administered the Psychological Sense of School Membership Scale (PSSM) designed to measure students' perceived sense of belonging in the school environment. The researchers also conducted interviews asking questions related to school belonging and students' relationships with their teachers and peers. Results of coded themes and responses indicated that students who felt they were liked, accepted and encouraged by their teachers and peers felt more attached to school than students who did not feel liked, accepted or encouraged. The researcher indicated that students' perceptions of their social interactions were significantly related to the students' sense of belonging in school.

Using short-term longitudinal data from a larger study of secondary students, Van Ryzin, Gravely, & Roseth (2009) conducted a study to examine the relationship between teacher-related belongingness and school-based autonomy. Perceived support from teachers and peers were assessed secondary school students using subscales from the Classroom Life Scale. The researchers used structural equation modeling (SEM) to examine relationships between variables. Results indicated a positive relationship between school belonging and students' perceptions of supportive teachers. These findings support the need for teachers to interact with students in a manner that is both caring and supportive.

LeCroy and Krysik (2008) conducted a study to investigate the factors that predict academic achievement and school attachment in Latino/a and White students. The study participants were seventh and eighth grade students. The students completed questionnaires to assess various factors in the study. Attachment to school was assessed using a 9-item scale averaged to create a single score. The researchers conducted a series of least squares regressions to assess the importance of factors (gender, family background characteristics, school-related factors, parent-child relationships, and linguistic acculturation) on GPA and school attachment. The results revealed parent-child relationship as the greatest predictor of school attachment. The researchers also conducted an ordinary least squares (OLS) regression using ethnicity as a moderator. The results provided important findings related to the current study. There were significant differences found between Latino/a and White students in six of nine variables measured, one of which was school attachment. White students

reported higher attachment to school and higher GPA than Latino/a students. Interestingly, when the data for Latino/a-only participants were analyzed to compare factors that predict GPA, the results were almost identical to the results of the entire sample with attachment to school being one of the predictors of student GPA. The results of this study along with previously-mentioned studies illustrate the important relationship between school attachment and so many other factors related to student success (Booker, 2007; Diaz, 2005; LeCroy & Krysik, 2008; Marcus & Sanders-Reio, 2001; Mouton, Hawkins, McPherson, & Copley, 1996; Van Ryzin, Gravely, & Roseth, 2009).

Goodenow (1993) provides evidence of gender differences in school attachment of middle school students where students' perceptions of teacher support were more closely related to motivation for girls than for boys. Additional findings indicated students' perceptions of teacher support declined from sixth grade to eighth grade. The researcher also found gender differences and differences by grade level where teacher support was more closely related to motivation for girls. Results indicated that teacher support declined for all students from sixth grade to eighth grade.

Johnson, Crosnoe and Elder (2001) suggest further study of school attachment might identify links to other important outcomes such as academic achievement, problem behaviors, and students dropping out of school. These findings may provide valuable information about ways to improve student learning.

Measuring school attachment. Several different instruments have been used to examine school attachment. The School Attachment Questionnaire (SAQ) was developed by Suzanne Mouton and colleagues at the University of Houston in 1993. The SAQ is a 20-item measure designed for middle and high school students to assess students' attachment to school. The questionnaire has been found to be internally consistent, as demonstrated by a Cronbach's alpha of 0.86 (Mouton et al., 1993 as cited in Mouton, Hawkins, McPherson, & Copley, 1996). Examples of other measures to assess school attachment include subscales of the School Success Profile (SSP), a 265-item questionnaire used to measure 92 different variables (Rosenfeld, Richman, & Bowen, 2000).

Student-Teacher Interactions

Relationships are defined by Whitmer (2005) as connections with others that provide us with meaning and genuine learning. While student-teacher interactions are not specifically defined in the literature, this definition seems to adequately describe student-teacher interactions in the classroom. Students' perceptions of teacher interactions involve assessing the learning environment through the perceptions of the students (Fraser & Walberg, 2005). The study of students' perceptions of teacher interactions began with Timothy Leary's Model for Interpersonal Teacher Behavior (MITB) in 1957. The model was designed to examine clinical psychology and psychotherapeutic settings. Based on its effectiveness in describing human interactions, it has been applied to other settings including the classroom (Wubbels & Brekelmans, 2005).

Way, Reddy, and Rhodes (2007) conducted a study to examine how students' perceptions of school climate and teacher support change during the middle school years. They also sought to determine whether student gender and SES explain variations in students' perceptions. Data was taken from a larger longitudinal study examining the role of educational environments. Students completed questionnaires near the beginning of each school year for three years beginning in sixth grade. Participants were administered subscales of the Perceived School Climate Scale to assess students' perceptions of teacher support and the school climate. To examine how students' perceptions of school climate changed over time, unconditional individual growth models were created for each repeated measure. Results revealed significant declines in students' perceptions of teacher support as students progressed from sixth grade to eighth grade. Results also indicated that sixth grade girls perceived more teacher support than boys.

Gutman, Sameroff and Eccles (2002) conducted a study of middle school African American students to examine the effects of multiple risk, promotive, and protective factors on GPA, number of absences, and math achievement test scores. The participants were part of a larger study, the Maryland Adolescent Development In Context (MADIC), and were assessed during the seventh grade. To assess teacher support, students were interviewed and asked four items from the Michigan Study of Adolescent Life Transitions. Student GPA, number of absences, and math test scores were obtained from student records. Results of correlational analyses revealed a negative relationship between teacher support

and math achievement test scores in middle school students, findings that contradict other studies that have found positive relationships between teacher support and academic outcomes. The researchers attribute the contradiction to the different types of social support measures used across studies. They also believe the direct interview questions which specifically asked about personal and academic problems may have provided data that would not be obtained on a questionnaire.

Den Brok, Fisher, and Koul (2005) conducted a study of teacher-student interpersonal behavior and students' attitudes toward science and found that teacher interpersonal behavior explains more than 12 percent of the total variance in students' attitudes towards science. Existing research indicates a consensus about the type of relationships among teachers and students that are preferred by students. The most preferred teacher interactions have been found to be supportive, caring, and bonding while also being demanding and strict with high expectations (Alder, 2002; Bondy, Ross, Gallingane, & Hambacher, 2007; Coll, Taylor, Fisher, 2002; Dorman, Fraser, & McRobbie, 1995; Muller, Katz, & Dance, 1999). Data from the QTI indicated students perceived most teachers exhibited behaviors in the leadership, helpful/friendly and understanding sectors. Other researchers also found these are the teacher behaviors students prefer (Wubbels, 1993 as referenced by Coll, Taylor, & Fisher, 2002). Coll, Taylor, and Fisher found a few differences in students' perceptions of teacher interactions based on age and ethnicity but considerable differences based on student gender. Results indicated younger students prefer teachers who are more

dominating whereas older students prefer teachers who are more relaxed. Results also indicated significant differences in students' perceptions based on student gender on five scales—understanding, uncertain, admonishing, student responsibility/freedom, and dissatisfied. Female students had an overall more positive perception of their teachers than their male counterparts. Females perceived teachers to be significantly more understanding and helpful/friendly than male students. Male students perceived teachers to be more uncertain and dissatisfied than female students.

These studies provide evidence of the importance of students' perceptions of teacher interactions. While there is some consensus, findings in existing literature related to students' perceptions of teacher interactions are not consistent. In most cases, significant differences in students' perceptions of teacher interactions are found based on student gender; the findings are inconclusive based on race. The current study aims to add to the literature by providing empirical evidence of the link between students' perceptions of teacher interactions and school attachment.

Measuring teacher interactions. The Questionnaire on Teacher Interaction (QTI) is the instrument used most often to measure teacher interactions, or more specifically, teacher behavior. Several of the studies that used the QTI to measure teacher behavior were conducted with some researchers participating in more than one study (Coll, Taylor, & Fisher, 2002; den Brok, Brekelmans, & Wubbels, 2004; den Brok, Fisher, & Koul, 2005; Khine & Fisher, 2004; Koul & Fisher, 2005; Wubbels & Brekelmans, 2005).

The Questionnaire on Teacher Interaction (QTI) was developed in the Netherlands by Theo Wubbels and Jack Levy in 1993. The QTI was based on Timothy Leary's Model of Communication (Wubbels, Levy, & Brekelmans, 1997). Researchers used Leary's Model for interpersonal relationships developed in 1957 to design an interactional teacher behavior model for education (Wubbels, Creton, & Hooymayers, 1985). The questionnaire was designed for secondary schools; however, there are versions available for primary schools, higher education, principals, and supervisors. The instrument is available in 15 languages.

The QTI originally had 77 items on a 5-point Likert-type scale but a more recent version has 64 items with eight scales. The QTI model has two dimensions, Influence (Dominance-Submission) and Proximity (Opposition-Cooperation) to describe eight types of teacher behavior: leadership, helpful/friendliness, understanding, giving students freedom and responsibility, uncertainty, dissatisfaction, admonishing, and strictness. When score results are computed, higher dimension scores indicate more dominance or cooperation perceived by students in the teacher behavior.

One strength of the QTI is the reliability of the instrument. Reliability has been reported between 0.58 and 0.90, and the QTI has been utilized in several research studies. Coll, Taylor, and Fisher (2002) found a reliability range of 0.58 to 0.84 on the scales of the QTI. Other strengths of the QTI are the length of the measure, simplicity of the items, and ease of scoring. The instrument was designed for secondary school students but is available in a primary version for

younger students. The 64-item measure may be easily completed by middle or high school students in a regular class period. It is also available in several versions, adding to its versatility. Although the instrument has been validated for use in a Western context and a multicultural classroom, studies using the QTI with African American and Latino/a students are limited. It is not known whether the instrument will have the same level of reliability with this population. The current study will add to the existing literature utilizing the QTI to study middle school students' perceptions of teacher interactions.

Home-school Dissonance

Home-school dissonance is a phenomenon that evolved from similar concepts that have become the focus of researchers for about thirty years. The phenomenon is based on the belief that social interaction plays a fundamental role in the development of cognition.

The definition of home-school dissonance varies in existing research. Arunkumar, Midgley, and Urdan (1999) defined home-school dissonance as the difference between the home and school lives of students. Kumar (2006) describes home-school dissonance as a difference or perceived difference in the values, beliefs, and norms of students' home and school environment. It is important to note that the difference may not actually exist, but if a student perceives a difference between home and school, the impact on the student may be the same. Baker (2005) indicates that students learn and process information by strategies they learn at home before entering school. If those strategies are

devalued or deemed unacceptable when the students enter school, the results may be devastating to the academic advancement of the student.

Arunkumar, Midgley, and Urdan (1999) conducted a longitudinal study examining the relationship between students' experiences of home-school dissonance and their emotional and academic well-being. They sought to determine whether African American students experience higher levels of home-school dissonance than European American students and whether students who experience high levels of dissonance have a lower grade point average (GPA) than those who experience no or low levels of dissonance. The participants were administered surveys in fifth grade and again in ninth grade. The results indicated no significant differences in home-school dissonance between African American and European American students and no significant differences between boys and girls. The researchers did find, however, that students who reported high levels of home-school dissonance had a lower GPA than students who experienced low levels of dissonance. They also found a main effect of ethnicity on GPA in which African American students received lower grades than European American students. A lower GPA in this study may represent another negative reaction to home-school dissonance referenced by Baker (2005). These findings support the necessity for teachers to create an environment of continuity between home and school for all students. They further establish the need for additional research about the impact of home-school dissonance on all students.

Wentzel (1997) asserts that additional research is needed to examine the connections between home and school contexts. Researchers maintain that

academic problems begin or increase during early adolescent years, especially for African American students (Gutman, Sameroff, & Eccles, 2002). These statements are indicators that there is a need for empirical research to provide researchers and educators with evidence of home-school dissonance and its impact on student outcomes in the immediate environment and throughout their school experience.

Measuring home-school dissonance. There was no known scale to assess home-school dissonance when Arunkumar, Midgley, and Urdan (1999) developed a 6-item scale to measure the construct. The Home-School Dissonance Scale had internal consistency and a Cronbach's alpha of 0.73. Scales to measure home-school dissonance are emerging as more researchers become interested in measuring the construct. One of those is the Cultural Congruity Scale (CCS) designed by A.M. Gloria and S.E. Robinson Kurpius. The instrument consists of 13 items and has been found to have good internal consistency with an alpha of 0.81 (Gloria & Kurpius, 1996). The Dissonance Between Home and School Scale (DBHSS) is a 5-item subscale of the Patterns of Adaptive Learning Scales (PALS). The questionnaire has good internal consistency with an alpha of 0.76 (Midgley et al, 2000).

Summary

Maddox and Prinz (2003) believe school attachment is malleable and the middle school years are a time for interventions to maintain or increase middle school students' attachment to school. School attachment becomes increasingly more important to school adjustment and overall well-being as students reach

adolescence (Van Ryzin, Gravely, & Roseth, 2009). While the transition from elementary to middle school is a critical time in the development of students, studies show that middle school students' perceptions of the learning environment become more negative as they progress through the middle school years (Allen & Boykin, 1992; Baker, 2005; Booker, 2004; Ogbu, 1982; Teven, 2001; Thomas, Richmond, & McCroskey, 1994; Way, Reddy, & Rhodes, 2007). These findings indicate the urgent need for researchers to identify specific variables that contribute to students' negative perceptions of the learning environment and the impact of student perceptions on academic and non-academic outcomes. Existing literature identify students' perceptions of negative student-teacher interactions and home school dissonance as potential factors in students' negative perceptions (Arunkumar, Midgley, & Urdan, 1999; Baker, 2005).

Research indicates that students' perceptions of teachers are good predictors of how well students do in school (Teven, 2001; Thomas, Richmond, & McCroskey, 1994). The perceived relationships that middle school students have with their teachers and students' perceptions of the classroom environment have been found to be directly and indirectly linked to student academic outcomes (Fisher & Rickards, 1996; Fraser & Walberg, 2005). Research shows differences in students' perceptions of teacher interactions based on ethnicity, gender and age of middle school students (Coll, Taylor, & Fisher, 2002; Way, Reddy, & Rhodes, 2007). Findings also indicate middle school students' perceptions of teacher support decline as students progress from sixth grade to eighth grade

(Way, Reddy, & Rhodes). Further, researchers found a negative relationship between students' perceptions of teacher support and math achievement test scores in middle school students (Gutman, Sameroff, & Eccles, 2002).

Students of color, especially African American students, face additional challenges in middle school where academic problems begin or increase during early adolescent years (Gutman, Sameroff, & Eccles, 2002; Monroe & Obidah, 2004). While there is a lack of empirical evidence to support the assumption of home-school dissonance, researchers believe it exists and believe it has an impact on students who have a cultural orientation that is not in harmony with the culture of the teacher. If middle school students do not perceive that their values, norms, and beliefs are acceptable and valuable, they may experience a lack of attachment to the school and lower academic achievement (Baker, 2005; Booker, 2007). Support for this claim is provided by Arunkumar, Midgley, and Urdan (1999) who found a link between students' perceptions of home-school dissonance and GPA.

It is critical for middle school students to have a strong attachment to school (Faircloth & Hamm, 2005). Research shows a relationship between school attachment and higher academic achievement (LeCroy & Krysik, 2008; McNeely, 2005). Studies reveal that middle school students who feel attached to school achieve at higher levels, have lower suspensions, and are less likely to drop out of school (Barber & Olsen, 1997; Battin-Pearson et al., 2000; Gutman, Sameroff, & Eccles, 2002). School attachment is essential to the success of middle school students and may predict whether they graduate from high school

(Battin-Pearson et al., 2000; Maddox & Prinz, 2003; Van Ryzin, Gravely, & Roseth, 2009). Battin-Pearson and colleagues indicated that low achievement is a predictor of whether students will drop out of school by the end of tenth grade. These findings illustrate a link between school attachment and student academic outcomes in middle school students. The challenge is to find predictors of school attachment.

There is a need for additional research to examine middle school student's perceptions of their home and school environments (Wentzel, 1997). The literature does not provide evidence of how middle school students' perceptions of teacher interactions or home-school dissonance are related to school attachment. This study aims to fill the void in the literature by providing research-based evidence about whether middle school students' perceptions of teacher interactions and home-school dissonance predict students' school attachment.

Chapter III

Methods

The purpose of this study was to investigate whether middle school students' perceptions of teacher interactions and middle school students' perceptions of home-school dissonance predict school attachment. The investigation also examined how middle school students' perceptions of teacher interactions and students' perceptions of home-school dissonance may differ by gender, ethnicity, and grade level. The methodology for the study is outlined in this chapter.

Sample

Data for this investigation were obtained from a larger study where surveys were administered to over 800 students in grades 6 through 8 in Language Arts classrooms in two Central Kentucky public middle schools with diverse student populations. The study sample consists of 832 students with 536 from one school and 296 from the other. Student age ranged from 10 to16 with a mean age of 12.5. The number of students represented per grade was fairly balanced with 241 sixth graders, 330 seventh graders, and 254 eighth graders. Seven students did not indicate their grade level. The sample consisted of 402 males and 426 females. Four students did not indicate gender. The sample was racially diverse consisting of 348 African Americans, 312 Caucasians, 43 Asian Americans, and 80 Latino/a.

Instruments

Questionnaire on teacher interactions. The QTI was used to measure students' perceptions of teacher interactions. The questionnaire consists of 64 items on a 5-point Likert-type scale with options from 0 (never) to 4 (always). The items are divided into eight subscales including leadership, helpful/friendly, understanding, student responsibility/freedom, uncertain, dissatisfied, admonishing, and strict.

The eight subscales of the QTI describe the extent to which the teacher is perceived to have or demonstrate certain behavioral characteristics (Coll, Taylor, & Fisher, 2002; Fisher & Rickards, 1996). The eight subscales and the characteristics of each are described as follows:

Leadership items are designed to describe the extent to which the teacher leads, organizes, gives orders, and determines procedures and structures in the classroom.

Helpful/friendly describes the extent to which the teacher shows interest, behaves in a friendly or considerate manner, and inspires confidence and trust.

Understanding describes the extent to which the teacher listens with interest, demonstrates empathy, shows confidence and understanding, and is open with students.

Student responsibility/freedom items are designed to describe the degree to which the teacher provides opportunities for independent work and gives freedom and responsibility to students.

Uncertain describes the extent to which the teacher behaves in an uncertain manner and keeps a low profile.

Dissatisfied describes the degree to which the teacher expresses dissatisfaction, criticizes, and looks unhappy.

Admonishing describes the level at which the teacher gets angry, expresses irritation and anger, or forbids and punishes.

Strict describes the extent to which the teacher checks, maintains silence, and strictly enforces the rules.

While the strict dimension may be considered a negative trait, research indicates that students prefer teachers who are strict (Muller, Katz, & Dance, 1999). Fisher and Rickards (1996) indicated that students consider the best teachers to be those who are strong leaders, more helpful/friendly, and more understanding than the average teacher. Student responsibility/freedom is seldom mentioned as a significant factor in existing research.

To make profile items, the appropriate survey items were added to obtain a subscale score. Because the number of items per subscale is not consistent, the total score for each subscale was divided by the number of items in the subscale so the range of all scores will be from zero to four, consistent with the item responses. A higher scale score indicates a more prominent behavior. Scale scores were combined to form a mean for specific groups of students. The values can be plotted to reveal the degree to which students perceive each behavior is exhibited.

The number of items and a sample item from each scale are shown in Table 1 below. The measure is included in Appendix C.

Table 1

QTI Scales, Number of Subscale Items, and Sample Items

Scale	# Items	Sample Item
Leadership	7	He talks enthusiastically about his subject.
Helpful/Friendly	8	He is concerned when we have not understood him.
Understanding	8	If we don't agree with him, we can talk about it.
Student Responsibility/Freedom	8	We can decide some things in his class.
Uncertain	7	He is hesitant.
Dissatisfied	9	He threatens to punish us.
Admonishing	8	He gets angry unexpectedly.
Strict	9	He is strict.

Reliability of the QTI has been described as good and ranged from 0.58 to 0.90 in existing studies (Coll, Taylor, & Fisher, 2002; den Brok, Brekelmans, & Wubbels, 2004). Other strengths of the measure are its length, simplicity of the items, and ease of scoring. The questionnaire instructs students to respond to a statement on a scale with five choices, A through E, with A being "Never" and E being "Always". The scoring guide indicates that items are scored as follows: 0 for A, 1 for B, 2 for C, 3 for D, and 4 for E. The subscale item scores are added and the sum is divided by the number of items to make a profile.

Cultural dissonance between home and school scale. The CDBHS was used to measure students' perceptions of home-school dissonance. The six items are designed to measure students' concern or discomfort due to differences between their home lives and school lives. The items are on a 5-point Likert-type scale with responses ranging from 1 (not at all true) to 5 (very true). Students were asked to respond to statements such as, "I don't like to have my parents come to school because their ideas are very different from my teachers' ideas".

To obtain the home-school dissonance scale score, scores are summed yielding a total score ranging from 5 to 25. To ease interpretation, the scale scores are averaged to be on the same metric as the response scores. A higher score indicates a higher perception of home-school dissonance. The CDBHS has good internal consistency with an alpha of 0.73 (Arunkumar, Midgley, & Urdan, 1999).

School attachment questionnaire. The SAQ (Mouton, Hawkins, McPherson, & Copley, 1996) was administered to assess students' attachment to school. The questionnaire consists of 20 items on a 5-point Likert-type scale with options from 1 (strongly disagree) to 5 (strongly agree). The survey was designed for middle and high school students. Students are instructed to respond to simple, declarative statements (i.e. "People at school like me"). Scores are summed ranging from 20 to 100 to comprise an attachment score. For ease of interpretability, the scale scores are averaged so the attachment scores and response scores are on the same metric. A higher score indicates greater attachment to school. The SAQ has been found to be to be internally consistent, as demonstrated by a Cronbach's alpha of 0.86 (Mouton, Dewitt, & Glazier, 1993, as cited in Mouton, Hawkins, McPherson, & Copley, 1996).

Procedures

This study was part of a larger study examining pre-service and in-service teachers' attitudes and efficacy towards and awareness of multicultural education. Approval was granted by the Institutional Review Board of the researcher's university and the participating school districts. Due to the age of participants, written informed consent was obtained from the legal guardian of the participants and written assent were obtained from the participants prior to completing the survey. Convenience sampling procedures were used to secure participants. The research team was comprised of an assistant professor and eight graduate students trained as research assistants. Seven members of the research team were African American, two were Caucasian. The survey

instruments were administered by the research team to participants in Language Arts classrooms in two 45-minute sessions on different days. Students were told that the survey was not a test and that there were no right or wrong answers. They were also assured that their answers would be kept confidential and individual data would not be shared with school teachers or administrators.

Analyses

This investigation tested the following hypotheses:

1. Middle school students' perceptions of teachers exhibiting certain behaviors will predict students' school attachment. These behaviors are indicated below:
    a. Middle school students' perceptions of teachers exhibiting *leadership* behaviors will predict students' school attachment.
    b. Middle school students' perceptions of teachers exhibiting *helpful/friendly* behaviors will predict students' school attachment.
    c. Middle school students' perceptions of teachers exhibiting *understanding* behaviors will predict students' school attachment.
    d. Middle school students' perceptions of teachers exhibiting *student/responsibility freedom* behaviors will predict students' school attachment.
    e. Middle school students' perceptions of teachers exhibiting *uncertain* behaviors will predict students' school attachment.

f. Middle school students' perceptions of teachers exhibiting *dissatisfied* behaviors will predict students' school attachment.

g. Middle school students' perceptions of teachers exhibiting a*dmonishing* behaviors will predict students' school attachment.

h. Middle school students' perceptions of teachers exhibiting *strict* behaviors will predict students' school attachment

2. Middle school students' perceptions of home-school dissonance will predict students' school attachment?
3. There are ethnic differences in middle school students' perceptions of teacher interactions and home-school dissonance.
4. There are gender differences in middle school students' perceptions of teacher interactions and home-school dissonance.
5. There are grade level differences in middle school students' perceptions of teacher interactions and home-school dissonance.

Descriptive analyses of demographic data related to teacher interactions, home-school dissonance, and school attachment were examined to identify missing data and outliers. A variance inflation factor were conducted to test for multicollinearity between and among variables. The scale items for each questionnaire—QTI, DBHSS and SAQ—were checked for internal reliability. Results were reported in a table displaying the overall alpha coefficients for each scale. A multivariate analysis of variance (MANOVA) procedure were performed to determine if there were significant differences in students' perceptions of teacher interactions and students' perceptions of home-school dissonance based

on ethnicity, gender and grade level. If interaction effects were present, interaction terms were created for a regression analysis. Multiple regression analyses were conducted to determine the predictive capabilities of middle students' perceptions of teacher interactions and middle students' perceptions of home-school dissonance on students' school attachment. The demographic variables—gender, ethnicity, and grade level—were entered in Step 1 of the regression model, followed by home-school dissonance in Step 2, and teacher interactions in Step 3.

Chapter IV

Results

The results from the statistical analyses of this study, using SPSS 16.0 for Windows, are presented in this chapter. The data analysis procedures are reviewed and presented as follows: (a) pre-analysis data screening, (b) descriptive statistics used to examine the predictor and criterion variables, (c) scale factor analysis for each scale used in the study, (d) internal reliability for each scale used in the study, (e) correlation analyses to test for multicollinearity among and between the predictor and criterion variables of interest, (f) multivariate analysis of variance used to examine between and within group differences, and (g) multiple regression analysis used to determine which variable(s), if any, predict school attachment in middle school students.

Pre-Analysis Data Screening

The data were screened to identify missing data, outliers, and to evaluate the fulfillment of test assumptions of normality, linearity, and homoscedasticity.

Demographic variables. Frequency statistics of demographic variables revealed cases with race (Table 2), class rank (Table 3), and/or gender (Table 4) missing. The data was sorted by the number of missing variables from largest to smallest to eliminate the fewest number of cases. There were 49 cases missing ethnicity, two of which were also missing class rank and gender. In addition, 5 cases were missing class rank, and 2 cases were missing gender.

Table 2

Descriptive Statistics of Race/Ethnicity Distribution

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	African American	348	41.8	44.4	44.4
	Caucasian	312	37.5	39.8	84.3
	Asian American	43	5.2	5.5	89.8
	Latino	80	9.6	10.2	100.0
	Total	783	94.1	100.0	
Missing Data		49	5.9		
Total		832	100.0		

Table 3

Descriptive Statistics of Class Rank Distribution

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	6th grade	241	29.0	29.2	29.2
	7th grade	330	39.7	40.0	69.2
	8th grade	254	30.5	30.8	100.0
	Total	825	99.2	100.0	
Missing Data		7	.8		
Total		832	100.0		

Table 4

Descriptive Statistics of Gender Distribution

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Male	402	48.3	48.6	48.6
	Female	426	51.2	51.4	100.0
	Total	828	99.5	100.0	
Missing data		4	0.5		
Total		94	100.0		

Since data will be analyzed based on demographic variables, the 56 cases with missing data were deleted leaving a total sample size of 776 students. Descriptive statistics of all demographic variables and individual survey items were run and the output was visually checked to verify accuracy of data entry. Scatterplots indicated linearity and normality. Univariate normality was assessed with histograms, and normality tests indicating some non-normal distributions; however, the distributions were not too extreme. Multivariate normality and homoscedasticity were examined through the generation of residual plots with some being scattered, but not too extreme. Multivariate normality and homoscedasticity were assumed.

Descriptive Statistics

Demographic variables. Descriptive statistics for demographic variables were examined. Frequencies and percentages are included for school, age, gender, class rank and race/ethnicity (Table 5). The study sample consists of 776 students ranging in age from 10 to 16 (mean age = 12.56, SD = .99) with 37% of the students from School A and 63% of the students from School B. Twenty-nine percent of the participants were sixth graders, 39% were seventh graders, and 31% were eighth graders. Males constituted 48.7% of the sample while females constituted 51.3% of the sample. The sample was composed of 44.6% African Americans, 39.7% Caucasians, 5.5% Asian Americans, and 10.2% Latino/a. All demographic data were student reported.

Predictor variables. The predictor variables for this study were student gender, student class rank (grade level), student race/ethnicity, perceived teacher interactions, and perceived home-school dissonance, all of which were student reported. Gender included two categorical options, male or female. Grade level included three categorical options--sixth, seventh, and eighth. There were four category options for student race/ethnicity—African American, Caucasian, Asian American, and Latino.

Teacher interactions were measured using the Questionnaire on Teacher Interactions (QTI) survey which is comprised of eight subscales. Each subscale was examined as a separate variable to determine its impact on school attachment in middle school students. The eight variables describe eight types of teacher behavior: leadership, helpful/friendliness, understanding, giving students

freedom and responsibility, uncertainty, dissatisfaction, admonishing, and strictness. The responses were coded on a 5-point scale with options 0 (never) to 4 (always). Scale scores were summed and averaged for easier interpretability. A higher score indicates a higher perception of the specific behavior.

Home-school dissonance was measured using the Cultural Dissonance Between Home and School Scale (CDBHS). The responses were coded on a 5-point scale with options 1 (not at all true) to 5 (very true). These scale scores were summed and averaged for easier interpretability with a higher score indicating a higher perception of home-school dissonance.

Table 5

Frequencies and Percentages for Demographic Variables

Variable	N	Percentage
School		
School A	288	37.1
School B	488	62.9
Age		
10	4	.5
11	118	15.2
12	244	31.4
13	264	34.0
14	136	17.5
15	6	.8
16	.1	.1
Gender		
Male	378	48.7
Female	398	51.3
Class Rank		
6th Grade	227	29.3
7th Grade	305	39.3
8th Grade	244	31.4

Table 5 continued

Variable	N	Percentage
Race/Ethnicity		
African American	346	44.6
Caucasian	308	39.7
Asian American	43	5.5
Latino	79	10.2

School: 1=School A, 2=School B; Gender: 1=Male, 2=Female; Class Rank: 1=6th Grade, 2=7th Grade, 3=8th Grade; Race/Ethnicity: 1=African American; 2=Caucasian, 3=Asian, 4=Latino/a

A principal components analysis was conducted on the QTI utilizing the Kaiser criterion of eigenvalues greater than or equal to 1.0 and factor loadings greater than or equal to .350 to determine the number of factors to be extracted and the percentage of variance accounted for. The analysis revealed ten components which accounted for 50% of the variance. To avoid sequence effect, the factors were converged in different orders. The results produced a ten-component solution each time. The factor loading for each item is shown in Table 6 (Appendix A). The alpha coefficient for the entire QTI scale was .856, however, the number of components and items contributing to the components were not consistent with the scale structure. The difference in component loadings may be attributed to the student population participating in this study. The eigenvalues, percent of variance, cumulative percent of variance, and alpha coefficients for each component of the original scale are shown in Table 7.

Table 7

Eigenvalues and % of Variance for the Original Items on the QTI

	Eigenvalue	% of Variance	Cumulative %	α
Component 1	12.037	18.808	18.808	.936
Component 2	7.500	11.718	30.526	.909
Component 3	3.050	4.765	35.291	.812
Component 4	1.939	3.029	38.320	.703
Component 5	1.404	2.194	40.514	.727
Component 6	1.334	2.085	42.599	.740
Component 7	1.282	2.002	44.601	.568
Component 8	1.204	1.882	46.483	--
Component 9	1.133	1.770	48.253	.568
Component 10	1.091	1.705	49.958	.467

Additional data reduction methods were utilized to reduce the number of scale components of the QTI. These methods included loading individual items and groups of items into the analysis to determine which items should be removed. The results generated a six-component solution with eigenvalues greater than or equal to 1.0 and factor loadings greater than .350 which accounted for 45.5 percent of the variance. The components were comprised of 51 of the 64 original scale items and had an alpha coefficient of .856.

Since the components and items composing each factor were different from the original QTI scale items, the components were assigned variable names based on the content of the six items converged. The new QTI components and the characteristics of each are described as follows:

TI_Critical/Passive describes the extent to which the teacher criticizes students or behaves in an uncertain manner.

TI_Supportive describes the extent to which the teacher shows support, understanding, and is open with students.

TI_Pleasant are designed to describe the degree to which teachers behave in a friendly, considerate manner with students.

TI_Demanding describes the extent to which the teacher determines procedures and structures in the classroom.

TI_Caring are designed to describe the degree to which the teacher demonstrates empathy, concern, and kindness for students.

TI_Cooperative describes the degree to which teachers provide opportunities for students to be involved in decisions in the classroom.

The scale items and factor loadings of the six new components are shown in Table 8 (Appendix A). The eigenvalues, percent of variance, cumulative percent of variance, and alpha coefficients for each of the six components are shown in Table 9.

Students' perceptions of home-school dissonance were measured using the CDBHS. The instrument was coded on a 5-point scale with response options ranging from 1 (not at all true) to 5 (very true). Factor analysis of the scale produced only one component which accounted for 42.74% of the variance. The result of the factor analysis is consistent with the construction of the scale which is designed to assess one construct--students' perceptions of home-school dissonance. The alpha coefficient for the CDBHS was .729. Statistics for the predictor variables are presented in Table 10 including the number of participants in the sample, mean, standard deviation, standard error, skewness, and alpha.

Table 9

Eigenvalues and % of Variance for the New QTI Components

	Eigenvalue	% of Variance	Cumulative %	α
TI_Critical/Passive	10.983	21.535	21.535	.932
TI_Supportive	6.358	12.467	34.001	.812
TI_Pleasant	2.003	3.987	37.988	.835
TI_Demanding	1.675	3.284	41.272	.727
TI_Caring	1.246	2.444	43.716	.855
TI_Cooperative	1.154	2.262	45.978	.740

Table 10

Descriptive statistics for predictor variables

	n	M	SD	SE	Skew	α
Gender	776	1.63	.48	.09	-.05	--
ClassRank	776	2.02	.80	.09	-.04	--
RaceEthnicity	776	1.81	.94	.09	1.13	--
Teacher Interactions						
TI_Critical/Passive	776	1.31	.79	.09	.18	.932
TI_Supportive	776	2.21	.85	.09	-.69	.812
TI_Pleasant	776	2.23	.90	.09	-.56	.835
TI_Demanding	776	2.29	.87	.09	-.62	.727
TI_Caring	776	2.37	.92	.09	-.71	.855
TI_Cooperative	776	2.19	.93	.09	-.55	.740
HSDissonance	753	2.80	.89	.09	.22	.729

Criterion variables. The criterion variable in the study is school attachment which was measured using the School Attachment Questionnaire (SAQ). The survey is designed to measure students' attachment to school. An initial reliability analysis revealed poor internal reliability with an alpha of .362. A factor analysis was conducted to determine if the scale was designed to measure only one construct. The initial factor analysis of the SAQ revealed four components with eigenvalues greater than or equal to 1.0 and factor loadings greater than or equal to .350. The component loadings of the original 20 items are shown in Table 11 (Appendix A). The four components accounted for 56.53% of the variance. Internal reliability analyses revealed good reliability coefficients for two of the subscales and very poor reliability coefficients for the other two subscales. The eigenvalues, percent of variance for individual components, cumulative percentage, and alpha coefficients are indicated in Table 12.

Several items on the SAQ were negatively worded although scoring guidelines did not indicate the items should be reverse-coded. However, when reviewing individual questions and response options, a high score on some items indicating strong agreement with the statement would imply low school attachment. The item, *I only come to school because my parents make me,* is an example. In an attempt to correct the problem based on the wording, nine items were reverse-coded using the 5-point Likert-type response options from 1(strongly agree) to 5 (strongly disagree), and a factor analysis was conducted on the scale utilizing the reverse-coded items. The second factor analysis generated the same results—four components accounting for 56.53% of the

variance. The reliability analysis revealed the same alpha coefficient for Component 1 and Component 4; however, the alpha coefficient for Component 2 changed from -.008 to .781 and the alpha coefficient for Component 3 changed from -.077 to .736.

Table 12

Eigenvalues and % of Variance for "Original" SAQ Scale Components

	Eigenvalue	% of Variance	Cumulative %	α
Component 1	5.840	29.202	29.202	.778
Component 2	2.636	13.182	42.384	-.008
Component 3	1.600	8.001	50.385	-.077
Component 4	1.230	6.149	56.534	.769

Multiple rotations were conducted to allow items to converge on factors but all rotations produced a four-component solution where two components included both high positive and high negative loadings. Due to difficulty of interpretation, the scale items included in the two bipolar components (Components 2 and 3) were eliminated. The components that were eliminated included the following items: 1, 2, 4, 7, 11, 12, 13, 14, 16, and 18.

The result of the analyses was a 10-item, two-component solution with factor loadings greater than .40 with eigenvalues of 4.229 and 1.213 which accounted for 42.19% and 12.13% of the variance, consecutively. The retained items with the corresponding factor loadings are shown in Table 13. Reverse-coded items are indicated by (R) after the statement. The new components were named based on the content of the questions comprising each. SA_FeelsLiked describes the extent to which students felt they were liked or cared about by others at school. SA_Connection describes the degree to which students felt connected to school or people at school. The eigenvalues, percent of variance, and cumulative percent of variance for the new SAQ components are indicated in Table 14. Descriptive statistics for the criterion variables are presented in Table 15 including the number of cases, mean, standard deviation, standard error, skewness, and alpha. The alpha coefficient for the entire scale improved to .841 for the 10 items retained.

Table 13

Factor Analysis of 10-Item SAQ

Scale Items	Factor Loading
Component 1: SA_FeelsLiked	
20. No one at school likes me. (R)	.798
3. The other kids at school don't like me. (R)	.767
15. No one wants to talk to me at school. (R)	.757
10. There is no one at school who cares about me. (R)	.655
8. People at school like me.	.577
Component 2: SA_Connection	
6. There are things I like to do at school.	.777
19. I care about the people at school.	.654
17. At school, I have people to hang out with.	.645
5. I talk to a lot of people at school.	.605
9. People notice when I miss school.	.520

Table 14

Eigenvalues and % of Variance for Two Components Retained

	Eigenvalue	% of Variance	Cumulative %
School Attachment			
SA_FeelsLiked	4.229	42.293	42.293
SA_Connection	1.213	12.128	54.420

Table 15

Descriptive statistics for criterion variables

	n	M	SD	SE	Skew	α
School Attachment						
SA_FeelsLiked	754	4.11	.81	.09	-.95	.813
SA_Connection	754	4.10	.71	.09	-1.15	.709

Correlational Analysis

A correlational analysis was conducted to examine the relationship between variables. Table 16 shows the correlation matrix of the numeric variables. Some important findings of correlations include: Home-school dissonance is significantly correlated with TI_CriticalPassive,TI_Demanding, and SA_FeelsLiked ($p<.05$). Except for TI_CriticalPassive vs. TI_Pleasant/TI_Caring, other pairs of QTI scores are highly correlated with each other ($p<.05$), which calls for attention to collinearity among these variables. Some variables which are highly correlated with others may be removed from subsequent analysis to avoid multicollinearity.

A regression analysis was conducted and the variance inflation factor statistic was computed for each criterion variable to assess multicollinearity. The collinearity test was employed to see if there is a collinear issue among the variables. Based on a tolerance greater than 0.10 and a variance inflation factor less than or equal to 10, all of the independent variables were tolerated in the model which means there is no collinearity problem with the predictor variables.

Table 16

Correlation Matrix of Predictors

	HSDissonance	TI_CriticalPassive	TI_Supportive	TI_Pleasant	TI_Demanding	TI_Caring
TI_CriticalPassive	.330***					
TI_Supportive	-.004	.061*				
TI_Pleasant	-.048	.018	.697***			
TI_Demanding	.167***	.520***	.340***	.280***		
TI_Caring	-.045	-.004	.764***	.766***	.302***	
TI_Cooperative	-.019	.084*	.689***	.576***	.318***	.626***

*: p<.05; **: p<.01; ***: p<.001

Multivariate Analysis of Variance

A multivariate analysis of variance was conducted to examine differences between and within student groups based on gender, grade level, and race. The Box's M test of equality of covariance was significant indicating the assumption of equal variances was violated, $F(720, 37293.23)=1.342$, $p=.000$, therefore; Pillai's Trace was used as the test statistic and significance levels were tested at the $p=.001$ level (Mertler & Vannatta, 2005). The Pillai's Trace indicated significant main effects for grade level, $\Lambda=.076$, $F(18, 1444)=3.18$, $p=.000$, multivariate $\eta 2=.038$. Univariate ANOVA results reveal TI_Critical/Passive significantly differs by grade, $F(2,729)=9.934$, $\eta^2=.027$, $p=.000$. TI_Caring also significantly differs by grade, $F(2,729)=7.876$, $p=.000$, $\eta^2=.026$. Further, the Pillai's Trace indicated significant main effects for race, $F(27, 2169)=2.456$, $p=.000$, multivariate $\eta^2=.030$. Results of between-subject effects reveal that TI_CriticalPassive significantly differs for grade level, $F(2,752)=9.934$, $p<.001$, partial $\eta^2=.027$ and race, $F(3,752)=8.211$, $p<.001$, partial $\eta^2=.033$). TI_Caring was also significant for grade level, $F(2,752)=9.671$, $p<.001$, partial $\eta^2=.026$. There were no other significant differences by grade or race and no significant differences revealed for gender.

Post hoc analyses were conducted to uncover specific differences between and within student groups. Examination of the Tamhane's T2 post hoc analysis revealed that eighth grade students perceive more critical/passive teacher interactions than sixth graders. Results also indicated that sixth graders perceive more caring teacher behaviors than seventh and eighth graders.

Results further revealed that African American students perceive more critical/passive teacher interactions than their Caucasian and Asian American peers. No other between-group differences were found. The significance of factor interactions was examined. Results of factor interactions did not reveal significant interactive effects of gender, grade level or race on the dependent variables.

Regression Analysis

Separate regression analyses were conducted to determine the predictive capabilities of middle school students' perceptions of teacher interactions and home-school dissonance on students' school attachment for each measure of school attachment, SA_FeelsLiked and SA_Connection. The univariate linear regression model was utilized to explore the factors that influence different dimensions of students' school attachment. This model was chosen because it is easier to interpret than the multivariate model and can provide direct information about how the dependent variables change as the independent variables change.

SA_FeelsLiked. The variables were entered in the model in the order in which they were expected to contribute to change in the outcome variable from least to most. The demographic variables (gender, grade level, and race) were entered in Step 1 as control variables to isolate their effects. Home school dissonance was entered in Step 2, and the teacher interaction variables (TI_Critical/Passive, TI_Supportive, TI_Pleasant, TI_Demanding, TI_Caring, and TI_Cooperative) were entered in Step 3 of the regression model. The results of the regression model for SA_FeelsLiked revealed middle school students'

perceptions of home-school dissonance significantly predict school attachment, R^2=.014, R^2_{adj}=.009, F(4,748)=2.716, p<.05. Students perceptions of teacher interactions also significantly predict school attachment, R^2=.067, R^2_{adj}=.054, F(10,742)=5.317, p<.001. Students' perceptions of home-school dissonance and teacher interactions accounted for approximately 7% of the variance in SA_FeelsLiked. Specifically, students' perceptions of pleasant teacher interactions were a significant predictor, β=.187, t(742)=3.245, $p<.05$. Students perceptions of demanding teacher interactions were also a significant predictor, β=.121, t(742)=2.673, p<.05. While students' perceptions of two teacher interaction variables—pleasant and demanding—had a positive impact on school attachment, students' perceptions of critical/passive teacher interactions had a significant negative impact on school attachment. Perceptions of home-school dissonance was significant at Step 2 in the model, β=-.088, t(742)=-2.421, p<.05, but not at Step 3 in the model, β=-.061, t(742)=-1.625. Students' perceptions of critical/passive teacher behaviors were significant, β=-.128, t(742)=-2.876, p<.05. Middle school students' perceptions of pleasant teacher interactions were the greatest predictor of SA_FeelsLiked. A summary of the regression analysis for variables predicting SA_FeelsLiked is presented in Table 17.

Table 17

Summary of Regression Analysis for Variables Predicting SA_FeelsLiked

Variable	*B*	*SE B*	β	*t*	*p*
Step 1					
Gender	.058	.059	.036	.977	.329
ClassRank	.046	.038	.044	1.208	.227
Race/Ethnicity	-.051	.032	-.058	-1.593	.112
Step 2					
Gender	.055	.059	.034	.935	.350
ClassRank	.051	.038	.049	1.348	.178
Race/Ethnicity	-.055	.032	-.063	-1.738	.083
Home-School Dissonance	-.081	.033	-.088	-2.421	.016*
Step 3					
Gender	.042	.058	.026	.725	.469
ClassRank	.068	.038	.065	1.784	.075
Race/Ethnicity	-.048	.031	-.055	-1.513	.131
Home-School Dissonance	-.056	.034	-.016	-1.625	.105
TI_Critical/Passive	-.132	.046	-.128	-2.876	.004*
TI_Supportive	.008	.060	.008	.129	.897
TI_Pleasant	.169	.052	.187	3.245	.001**
TI_Demanding	.113	.042	.121	2.673	.008*

Table 17 (continued)

Summary of Regression Analysis for Variables Predicting SA_FeelsLiked

Variable	*B*	*SE B*	β	*t*	*p*
TI_Caring	-.101	.058	-.114	-1.735	.083
TI_Cooperative	.074	.044	.084	1.658	.098

*p</=.05; **p</=.001

SA_Connection. The results of the regression model for SA_Connection indicated middle school students' perceptions of teacher interactions also significantly predict school attachment, R^2=.108, R^2_{adj}=.096, F(10,742)=9.011, p<.001. Teacher interactions and student demographic variables accounted for approximately 11% of the variance in SA_Connection. Student gender was a significant predictor of school attachment at each step of the model. At Step 1, gender was significant, β=.111, t(742)=3.053, p<.05. At Steps 2 and 3, gender was also significant, β=.112, t(742)=3.086, p<.05 and β=.103, t(742)=2.948, p<.05, respectfully. Class rank was a significant predictor of school attachment at Steps 1 and 3 but not at Step 2, β=.073, t(742)=2.002, p<.05 and β=.100, t(742)=2.778, p<.05, consecutively. Students' perceptions of three teacher interaction variables—critical/passive, pleasant, and demanding—were significant predictors of school attachment with critical/passive interactions having a negative impact, β=-.129, t(742)=-2.965, p<.05. Students' perceptions of pleasant and demanding teacher interactions had a positive impact on school attachment, β=.228, t(742)=4.034, p<.001 and β=.132, t(742)=2.996, p<.05, consecutively. When combined with the teacher interaction variables in Step 3, students' perceptions of home-school dissonance was a significant predictor of school attachment with a positive impact, β=.088, t(742)=2.378, p<.05. Middle school students' perceptions of pleasant teacher interactions were the greatest predictor of SA_Connection and SA_FeelsLiked. A summary of the regression analysis for variables predicting SA_Connection is presented in Table 18.

Table 18

Summary of Regression Analysis for Variables Predicting SA_Connection

Variable	*B*	*SE B*	β	*t*	*p*
Step 1					
Gender	.156	.051	.111	3.053	.002*
ClassRank	.066	.033	.073	2.002	.046*
Race/Ethnicity	-.011	.028	-.014	-.386	.700
Step 2					
Gender	.158	.051	.112	3.086	.002*
ClassRank	.063	.033	.069	1.911	.056
Race/Ethnicity	-.008	.028	-.011	-.292	.770
Home-School Dissonance	.046	.029	.058	1.589	.113
Step 3					
Gender	.145	.049	.103	2.948	.003*
ClassRank	.090	.033	.100	2.778	.006*
Race/Ethnicity	-.003	.027	-.004	-.110	.913
Home-School Dissonance	.070	.029	.088	2.378	.018*
TI_Critical/Passive	-.116	.039	-.129	-2.965	.003*
TI_Supportive	-.016	.051	-.020	-.324	.746
TI_Pleasant	.179	.044	.228	4.034	.000**
TI_Demanding	.108	.036	.132	2.996	.003*

Table 18 (continued)

Summary of Regression Analysis for Variables Predicting SA_Connection

Variable	*B*	*SE B*	β	*t*	*p*
TI_Caring	-.023	.049	-.030	-.466	.642
TI_Cooperative	.055	.038	.072	1.461	.145

*p</=.05; **p</=.001

Summary

The detailed description of the results obtained began with a pre-data analysis screening to identify missing data, outliers, and to test assumptions. Descriptive analyses of independent and dependent variables were provided. Factor analyses were conducted on each scale and internal reliability was conducted to obtain the alpha coefficient for each scale and subscale. New components emerged for the QTI and SAQ. A regression analysis was conducted to compute the variance inflation factor statistic for each criterion variable to assess multicollinearity, and none of the variables were found to be highly correlated. A multivariate analysis of variance was conducted to test for differences between and within the variables. The Tamhane's post hocs provided information about where significant differences existed between groups. Finally, the regression analyses provided information about the predictive capabilities of the independent variables that had been identified as significant predictors of the dependent variables. A summary of the hypotheses and outcomes are presented in Table 19 based on the new variables that emerged from the teacher interaction questionnaire.

Table 19

Summary of Hypotheses based on New Teacher Interaction Variables

Hypotheses		Outcome
H1:	Middle school students' perceptions of teachers exhibiting certain behaviors will predict students' school attachment. These behaviors are indicated below:	
	a. TI_Critical/Passive	Supported
	b. TI_Supportive	Not Supported
	c. TI_Pleasant	Supported
	d. TI_Demanding	Supported
	e. TI_Caring	Not Supported
	f. TI_Cooperative	Not Supported
H2:	Middle school students' perceptions of home-school dissonance will predict students' school attachment.	Supported
H3:	There are ethnic differences in middle school students' perceptions of teacher interactions and home-school dissonance.	Supported
H4:	There are gender differences in middle school students' perceptions of teacher interactions and home-school dissonance.	Not Supported

Table 19 (continued)

Summary of Hypotheses based on New Teacher Interaction Variables

Hypotheses		Outcome
H5:	There are grade level differences in middle school students' perceptions of teacher interactions and home-school dissonance.	Supported

Chapter V

Discussion

The findings of this study will be discussed and organized in four sections: (1) interpretation and discussion of findings, (2) limitations of the study, (3) implications, and (4) recommendations for future research. This study examined whether middle school students' perceptions of teacher interactions and home school dissonance predict school attachment. The study also sought to determine how students' perceptions may differ in the three grades of middle school—sixth, seventh, and eighth. Additionally, the study examined students' perceptions of teacher interactions based on gender and four racial groups—Caucasians, African Americans, Latino/a, and Asian Americans.

Interpretation of Findings

Some findings from this study are consistent with existing research while others are not. The details will be discussed as results are presented.

Hypothesis one. Hypothesis one - *Middle school students' perceptions of teachers exhibiting certain behaviors will predict students' school attachment* – was supported by the results. Findings revealed that teacher interaction variables assessed by this study --critical/passive, pleasant, and demanding—were significant predictors of school attachment in middle school students. Students' perceptions of pleasant teacher interactions increase students' attachment to school and emerged as the greatest predictor of school attachment in middle school students.

Hypothesis two. Hypothesis two - *Middle school students' perceptions of home-school dissonance will predict students' school attachment* – was supported by the results of the study. When combined with demographic variables, students' perceptions of home-school dissonance were a significant predictor that decreased school attachment in the SA_FeelsLiked dimension. When the teacher interaction variables were added to the model, however, home-school dissonance was not a significant predictor. This may be an indication that teacher interactions can minimize the effects of students' perceptions of home-school dissonance. As a result, students feel liked and school attachment increases based on students' perceptions of teacher interactions. For the SA_Connection dimension, students' perceptions of home-school dissonance were a significant predictor that increases school attachment but only when combined with teacher interaction variables. The findings illustrate the powerful impact of students' perceptions of teacher interactions on students' attachment to school.

Hypothesis three. Hypothesis three - *There are ethnic differences in middle school students' perceptions of teacher interactions and home-school dissonance - was supported by the study results.* Results revealed significant differences in students' perceptions of teacher interactions based on race. African American students perceived more critical/passive teacher interactions than their Caucasian and Asian American peers. Results were consistent with existing research indicating significant

differences between African American and Caucasian students (Coll, Taylor, & Fisher, 2002). Significant differences were not found, however, between other ethnic groups as indicated by existing research (LeCroy & Krysik, 2008). The results, however, indicated no significant differences in students' perceptions of home-school dissonance between or within any demographic groups in the study. These findings are consistent with existing research results indicating that African American students do not experience higher levels of home-school dissonance than European students (Arunkumar, Midgley, & Urdan, 1999).

Hypothesis four. Hypothesis four - *There are gender differences in middle school students' perceptions of teacher interactions and home-school dissonance – was not supported.* Findings in existing studies are inconsistent as they relate to gender with some researchers indicating significant differences in students' perceptions by gender while others did not find significant differences by gender (Arunkumar, Midgley, & Urdan, 1999; Goodenow, 1993; Sanchez, Colon, & Esparza, 2005; Way, Reddy, & Rhodes, 2007). Results of this study did not indicate significant gender differences in students' perceptions in any of the outcome variables.

Hypothesis five. Hypothesis five - *There are grade level differences in middle school students' perceptions of teacher interactions and home-school dissonance – was supported.* Findings related to grade level were consistent with existing research (Goodenow, 1993; Way, Reddy, & Rhodes (2007). Results revealed significant main effects for grade level

based on students' perceptions of critical/passive and caring teacher interactions. Eighth graders perceived teachers to be more critical and passive than sixth graders. Sixth grade students perceived teachers to be more caring than seventh and eighth grade students. These findings support existing research studies that found middle school students' perceptions of the learning environment become more negative as they progress through the middle school years (Allen & Boykin, 1992; Baker, 2005; Booker, 2004; Ogbu, 1982; Teven, 2001; Thomas, Richmond, & McCroskey, 1994; Way, Reddy, & Rhodes, 2007). Results indicated no significant differences in students' perceptions of home-school dissonance between or within grade levels.

The significance of factor interactions was examined. Results did not reveal significant interactive effects of gender, grade level or race on the dependent variables.

Limitations

Results of this study indicate that students' perceptions of teacher interactions significantly predict students' attachment to school. The model, however, predicted a small amount of the variance in school attachment, suggesting the results should be interpreted with caution. While participants were enrolled in two middle schools in different school districts in Kentucky, the student demographics at the schools were very similar with students of color comprising more than 30% of the school population. It is not rational to generalize study results to the larger middle school student population.

Results from all items on the SAQ were not utilized because the instrument was found to have poor reliability for the sample population data. The revalidated scale was used to encompass the components revealed in the scale construction during the factor analysis. This change limits the generalization of findings in this study to other studies of school attachment in middle school students that utilized the SAQ.

Home-school dissonance is a complex concept that is difficult to measure and middle school students may not understand the terminology used in the questions. Further, an attempt to measure students' perceptions of home-school dissonance with one 6-item survey may not be adequate. It would not be appropriate to generalize the findings of this study to the total middle school population.

Another limitation of this study deals with the generality of student responses. Students were asked to respond to questions based on the entire school environment as opposed to specific teachers. Generalized responses may have eliminated valuable feedback regarding students' perceptions of teacher interactions based on individual teachers.

Implications

Findings of this study were significant and provide implications for teachers, administrators, and other school personnel. Middle school students' perceptions of teachers do significantly predict school attachment. School personnel should focus on increasing teacher interactions with students that may be perceived as pleasant and caring yet demanding. On the other hand, school

personnel should work to reduce teacher interactions with students that may be perceived as critical or passive. Teachers who can interact with their students in a pleasant and caring manner while maintaining high standards would be the most effective in a middle school classroom. They should also be strong leaders without criticizing students.

While students' perceptions of home-school dissonance were a significant predictor of school attachment in middle school, results indicate that teacher interactions reduce its impact. Since the findings of this study reveal that African American students perceive more critical/passive teacher interactions, teachers would benefit from professional development training emphasizing teaching diverse populations. With the support of school administrators, teachers should conduct self-evaluations of their interactions with all students to ensure consistency regardless of race. This finding also provides implications for teacher education programs to require students to take a series of cultural diversity courses.

Results indicating significant differences in students' perceptions of teacher interactions by grade level provide implications for teachers and administrators to implement professional development activities and programs to focus on improving teacher-student relationships as students matriculate through the middle school grades. Although students' perceptions of teacher interactions predict a small percentage of the variance in school attachment, these findings have implications of the long-term impact on student-teacher interactions. Research supports the importance of teacher interactions with students in the

classroom (Alder, 2002; Bondy, Ross, Gallingane, & Hambacher, 2007; Coll, Taylor, Fisher, 2002; Dorman, Fraser, & McRobbie, 1995; Muller, Katz, & Dance, 1999).

Recommendations for Future Research

Research indicates that students' perceptions of teachers are good predictors of how well students perform in school (Teven, 2001; Thomas, Richmond, & McCroskey, 1994). There is a need for much more research of students' perceptions of their learning environment. The results of this study contribute to the literature by providing results of perception patterns of middle school students as they progress through the middle school grades.

It is recommended that researchers continue to conduct studies examining the non-academic factors which may impact students' attachment to school and student academic outcomes. Researchers should consider conducting a study measuring several in-school variables which may predict students' attachment to school. This may add to the current study by increasing the variance explained in school attachment. Using at least two instruments to measure the school attachment would provide researchers with comparison data based on multiple scales. It is also recommended that researchers conduct studies with sample populations coming from a variety of schools in areas throughout the United States. Analyzing data by school may reveal helpful information about students' perceptions based on the diversity of the school population. In addition, future research studies examining students' perceptions of teachers should ask students to provide perceptions of specific teachers rather than the overall

learning environment. Collecting and analyzing data based on teacher variables such as gender, race, age, and teaching experience may uncover additional information about students' perceptions as they relate to specific teacher variables. These findings would provide valuable information to teachers and administrators when developing professional development activities for teachers and intervention programs for students.

School attachment is critical to positive experiences and successes of middle school students and have been linked to higher levels of academic achievement (Battin-Pearson et al.; Maddox & Prinz, 2003; Van Ryzin, Gravely, & Roseth, 2009). The middle school years are extremely important to the academic, social, and behavioral development of students (Maddox & Prinz, 2003; Van Ryzin, Gravely, & Roseth, 2009). The classroom learning environment is complex, and a lot of variables contribute to the success or failure of students. While there is still a lot to learn about student-teacher interactions and school attachment, research indicates that non-academic factors do contribute to students' academic outcomes (Allen & Boykin, 1992; Baker, 2005; Ogub, 1982; Teven, 2001; Thomas, Richmond, & McCroskey, 1994; Way, Reddy, & Rhodes, 2007). Existing research provides evidence of a relationship between students' perceptions of teacher interactions, academic outcomes, and school attachment and evidence that school attachment predicts whether students stay in school (Battin-Pearson et al., 2000; Gutman & Midgley, 2000; Maddox & Prinz, 2003; McNeely, 2005).This connection should be sufficient confirmation for teachers and administrators to focus attention on the behaviors being exhibited by

teachers in the classroom. Identifying specific predictors of school attachment could lead to interventions that increase students' attachment to school. Increasing students' attachment to school may lead to an increase in academic achievement and a decrease the number of high school dropouts.

APPENDIX A

Tables

Table 6

Factor Analysis of QTI

Components	Factor Loading
Component 1	
28. Most of my teachers put us down.	.716
26. Most of my teachers are unhappy.	.675
44. Most of my teachers are not sure what to do when I fool around.	.661
19. Most of my teachers try to make us look foolish.	.658
12. Most of my teachers think I don't know anything.	.655
46. It is easy to make a fool out of most of my teachers.	.647
39. Most of my teachers act as if they don't know what to do.	.642
42. Most of my teachers let me boss them around.	.634
33. Most of my teachers let me get away with a lot in class.	.583
34. Most of my teachers are hesitant.	.568
16. Most of my teachers get angry unexpectedly.	.562
30. Most of my teachers think I can't do things well.	.558
23. Most of my teachers seem uncertain.	.557
10. Most of my teachers think I cheat.	.557
24. Most of my teachers look down on me.	.554
59. It is easy to pick a fight with most of my teachers.	.527

Table 6 (continued)

Factor Analysis of QTI

Components	Factor Loading
Component 1 (continued)	
54. Most of my teachers seem dissatisfied.	.524
51. Most of my teachers have a bad temper.	.516
27. Most of my teachers let us fool around in class.	.508
55. Most of my teachers are timid.	.508
43. Most of my teachers are impatient.	.500
38. Most of my teachers get angry quickly.	.485
61. We are afraid of most of my teachers.	.454
58. Most of my teachers are suspicious.	.447
7. Most of my teachers threaten to punish me.	.388
Component 2	
35. Most of my teachers are friendly.	.649
37. Most of my teachers are someone I can depend on.	.648
52. Most of my teachers are good leaders.	.624
47. Most of my teachers have a sense of humor.	.608
40. Most of my teachers hold our attention.	.606
36. I learn a lot from most of my teachers.	.573
60. Most of my classes are pleasant.	.545

Table 6 (continued)

Factor Analysis of QTI	
Components	Factor Loading
Component 2 (continued)	
45. Most of my teachers know everything that goes on in the classroom.	.522
56. Most of my teachers are patient.	.515
62. Most of my teachers act confidently.	.480
50. Most of my teachers can take a joke.	.474
32. Most of my teachers realize when I don't understand.	.460
Component 3	
15. Most of my teachers help me with our work.	.702
18. Most of my teachers sympathize with me.	.664
13. If I want something, most of my teachers are willing to cooperate.	.630
17. If I have something to say, most of my teachers will listen.	.600
29. Most of my teachers take a personal interest in me.	.507
31. Most of my teachers explain things clearly.	.496
11. Most of my teachers are willing to explain things again.	.479

Table 6 (continued)

Factor Analysis of QTI

Components	Factor Loading
Component 3 (continued)	
4. Most of my teachers trust me.	.430
21. I can influence most of my teachers.	.378
Component 4	
48. Most of my teachers allow me a lot of choice in what I study.	.649
25. I have the opportunity to choose assignments which are most interesting to me.	.625
49. Most of my teachers give us a lot of free time in class.	.580
Component 5	
14. Most of my teachers' tests are hard.	.630
9. Most of my teachers are demanding.	.603
20. Most of my teachers' standards are very high.	.574
1. Most of my teachers are strict.	.463

Table 6 (continued)

Factor Analysis of QTI

Components	Factor Loading
Component 6	
5. Most of my teachers are concerned when I have not understood.	.641
8. I can decide some things in class.	.593
6. If I don't agree with our teachers, I can talk about it.	.523
3. Most of my teachers talk enthusiastically about the subject.	.501
Component 7	
64. Most of my teachers are lenient.	.621
63. Most of my teachers are sarcastic.	.574
Component 8	
41. Most of my teachers are too quick to correct me when we break a rule.	.699
Component 9	
53. If I don't finish my homework, I'm scared to go to most of my classes.	.591
57. Most of my teachers are sever when marking papers.	.456

Table 6 (continued)

Factor Analysis of QTI

Components	Factor Loading
Component 10	
2. I have to be silent in classes.	.738
22. I need my teachers' permission before I speak.	.389

Table 8

Factor Analysis of New QTI Components

Components	Factor Loading
TI_Critical/Passive	
44. Most of my teachers are not sure what to do when I fool around.	.721
39. Most of my teachers act as if they don't know what to do.	.707
42. Most of my teachers let me boss them around.	.699
28. Most of my teachers put us down.	.688
46. It is easy to make a fool out of most of my teachers.	.676
19. Most of my teachers try to make us look foolish.	.624
26. Most of my teachers are unhappy.	.616
34. Most of my teachers are hesitant.	.615
27. Most of my teachers let us fool around in class.	.609
33. Most of my teachers let me get away with a lot in class.	.599
12. Most of my teachers think I don't know anything.	.588
23. Most of my teachers seem uncertain.	.583
30. Most of my teachers think I can't do things well.	.568
55. Most of my teachers are timid.	.561
59. It is easy to pick a fight with most of my teachers.	.549
54. Most of my teachers seem dissatisfied.	.538

Table 8 (continued)

Factor Analysis of New QTI Components

Components	Factor Loading
TI_Critical/Passive (continued)	
51. Most of my teachers have a bad temper.	.521
24. Most of my teachers look down on me.	.519
43. Most of my teachers are impatient.	.515
10. Most of my teachers think I cheat.	.512
16. Most of my teachers get angry unexpectedly.	.511
58. Most of my teachers are suspicious.	.488
TI_Supportive	
15. Most of my teachers help me with my work.	.702
18. Most of my teachers sympathize with me.	.668
13. If I want something, most of my teachers are willing to cooperate.	.655
17. If I have something to say, most of my teachers will listen.	.611
29. Most of my teachers take a personal interest in me.	.527
21. I can influence most of my teachers.	.483
31. Most of my teachers explain things clearly.	.481
11. Most of my teachers are willing to explain things again.	.464
4. Most of my teachers trust me.	.441

Table 8 (continued)

Factor Analysis of New QTI Components

Components	Factor Loading
TI_Pleasant	
56. Most of my teachers are patient.	.641
60. Most of my classes are pleasant.	.636
50. Most of my teachers can take a joke.	.609
62. Most of my teachers act confidently.	.572
47. Most of my teachers have a sense of humor.	.520
52. Most of my teachers are good leaders.	.504
TI_Demanding	
9. Most of my teachers are demanding.	.669
20. Most of my teachers' standards are very high.	.604
1. Most of my teachers are strict.	.587
14. Most of my teachers' tests are hard.	.530
TI_Caring	
45. Most of my teachers know everything that goes on in the classroom.	.581
37. Most of my teachers are someone I can depend on.	.556
40. Most of my teachers hold our attention.	.509
36. I learn a lot from most of my teachers.	.503

Table 8 (continued)

Factor Analysis of New QTI Components

Components	Factor Loading
TI_Caring (continued)	
35. Most of my teachers are friendly.	.492
32. Most of my teachers realize when I don't understand.	.370
TI_Cooperative	
5. Most of my teachers are concern when I have not understood.	.627
3. Most of my teachers talk enthusiastically about the subject.	.603
8. I can decide some things in class.	.563
6. If I don't agree with our teachers, I can talk about it.	.527

Table 11

Factor Analysis of SAQ (Original Items)

Scale Items	Factor Loading
Component 1	
15. No one wants to talk to me at school.	.760
20. No one at school likes me.	.759
3. The other kids at school don't like me.	.752
10. There is no one at school who cares about me.	.666
Component 2	
13. I only come to school because my parents make me.	.754
12. I like nothing about school.	.751
1. School is not the place for me.	.721
18. I like school.	-.693
Component 3	
16. My teachers listen to me.	.725
14. My teachers don't like me.	-.696
7. My teachers want me to do well in school.	.666
11. I like some of my teachers	.589
4. The principal is nice to me.	.566
2. Most teachers don't want me in their class.	-.520

Table 11 (continued)

Factor Analysis of SAQ (Original Items)

Scale Items	Factor Loading
Component 4	
5. I talk to a lot of people at school.	.653
17. At school, I have people to hang out with.	.615
6. There are things I like to do at school.	.608
8. People at school like me.	.578
19. I care about the people at school.	.495
9. People notice when I miss school.	.475

Appendix B

Consent Forms

Consent to Participate in a Research Study

Examining the link between multicultural education, teaching efficacy and student motivation.

Your child is being invited to take part in a research study about how middle school students feel they are doing in school. Your child is being invited to take part in this research study because he/she is a student at Newberg Middle School. If your child volunteers to take part in this study, he/she will be one of about 1200 middle grade students to do so.

The person in charge of this study is **Dr. Kenneth Tyler, Assistant Professor in the Department of Educational and Counseling Psychology at the University of Kentucky**. There will be other people on the research team assisting at different times during the study. The purpose of the study is to determine what classroom teacher practices and attitudes help middle school students to do their best at school.

By doing this study, we hope to learn how to make classrooms more fun and challenging for all students. The research procedures will be conducted at Newberg Middle School in Jefferson County, in their Social Studies classrooms. The total amount of time your child will be asked to volunteer for this study is 1 hour. Your child will receive a treat for completing the survey to the best of his/her abilities. A new, unsharpened pencil and a treat will be provided to those that do not wish to participate in the survey or who partially complete the survey.

On the day where the research is scheduled to take place, your child will come to their Social Studies classes at regular times and sit in regular seating. Members of the research team will be there to greet and provide instructions for the session. Your child will be given a form which will let them know that no one else will see their answers, not even the teacher, and that they are free to not participate in the study. Your child will be asked if they understand this form and will sign on the bottom line of the form and return the form if he/she wants to participate. Your child will then be provided a small survey packet and a pencil and then instructions on how to complete the survey will be provided. Instructions for each survey will be read aloud, while your child can follow on his/her own. Your child will have 60 minutes to complete the survey packets on each the day that the survey is given. Once the survey is completed and checked for missing pages, your child will be given a treat and then will quietly return to his/her seat until all students have completed and turned in their surveys and received a treat for participating.

To the best of our knowledge, the things your child will be doing have no more risk of harm than you would experience in everyday life. We cannot and do not guarantee that your child will receive any personal benefits from taking part in this study. One possible benefit for participating in this study is providing information to people who can, in the future, help to make school experiences better for your child.

If you decide that your child can take part in the study, it should be because you really want him or her to participate. Your child will not lose any benefits or rights he/she would normally have if you choose not to have him/her participate. Your child can stop at any time during the study and still keep the benefits and rights he/she had before volunteering. If you decide to not have your child participate in this study, your decision will have no effect on what happens in this classroom or your child.

If you do not want your child to take part in the study, his/her teacher will find your child a non-academic task to participate in while other students are completing the survey. There are no costs associated with taking part in the study.

Your child's information from the surveys will be combined with information from other students taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered, not on individual children or classrooms. Your child, nor his/her teacher or school will not be identified in these written materials. We may publish the results of this study; however, we will keep your name, your child's name, your child's teacher's name and the school's name and any other identifying information private.

This study is confidential. That means that no one, not even members of the research team, will know that the information you give came from your child.

If you decide to allow your child to take part in the study, your child still has the right to decide at any time that he/she no longer wants to continue. You, nor your child, will be treated differently if your child decides to stop taking part in the study. Again, your child will receive a treat (candy bar) for completing the survey to the best of his/her abilities. A new, unsharpened pencil will be provide to those that do not wish to participate in the survey or who partially complete the survey.

If you have questions, suggestions, concerns, or complaints about the study or your child's participation in it, you can contact the investigator, **Kenneth Tyler at (859) 257-7873**. If you have any questions about your rights or your child's rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky at 859-257-9428 or toll free at 1-866-400-9428. We will give you a signed copy of this consent form to take with you.

You will be told if any new information is learned which may affect your condition or influence your willingness to continue taking part in this study.

_____ _____

Signature of person agreeing to have child take part in the study Date

_____

Printed name of person agreeing to have child take part in the study

_____

Printed name of child given consent to take part in the study

_____ _____

Name of [authorized] person obtaining informed consent Date

Assent Form/Script

You are invited to be in a research study being done by Dr. Kenneth Tyler in the Department of Educational and Counseling Psychology, College of Education, University of Kentucky. You are invited because you are a middle grade student in a Language Arts class.

If you agree to be in the study, you will be provided a small survey packet and a pencil and then instructions on how to complete the survey will be provided. Instructions for each survey will be read aloud, while you read quietly. You will have forty-five minutes today and tomorrow to complete the survey packet. Once surveys are completed and checked for missing pages, you will receive a five dollar ($5) gift card and a new unsharpened pencil for completing the survey to the best of your abilities. A new, unsharpened pencil and a treat will be provide to those that do not wish to participate in the survey or those who do not complete the survey.

After receiving these items, you will be asked to quietly return to your seats until all students have completed and turned in their packets and received gift cards for participating. Students that do not complete the survey or do not wish to participate will receive a token item (i.e., pencil & treat).

If anyone else is given information about you, they will not know your name. A number or initials will be used instead of your name.

If something makes you feel bad while you are in the study, please tell Dr. Kenneth Tyler. If you decide at any time you do not want to finish the study, you may stop whenever you want.

You can ask Dr. Kenneth Tyler or one of his assistants, questions at any time about anything in this study.

Signing this paper means that you have read this or had it read to you, and that you want to be in the study. If you do not want to be in the study, do not sign the paper. Being in the study is up to you, and no one will be mad if you do not sign this paper or even if you change your mind later. You agree that you have been told about this study and why it is being done and what to do.

_____ _____

Signature of Student Agreeing to be in the Study Date Signed

Appendix C

Questionnaires

The Questionnaire on Teacher Interaction (American version)

For each of the following sentences, circle the number you think most applies to your teachers.

Example:

	Never				Always
He expresses himself clearly.	A	B	C	D	E

If you think that your teacher always expresses himself clearly, darken letter E on your answer sheet. If you think your teacher never expresses himself clearly darken letter A. You can also
choose letters B, C or D, which are in between. If you want to change your answer after you have circled an answer, please erase completely.

POSSIBLE RESPONSES

NEVER ALWAYS

A B C D E

1. He is strict.	A	B	C	D	E
2. We have to be silent in his class.	A	B	C	D	E
3. He talks enthusiastically about his subject.	A	B	C	D	E
4. He trusts us.	A	B	C	D	E
5. He is concerned when we have not understood him.	A	B	C	D	E
6. If we don't agree with him we can talk about it.	A	B	C	D	E
7. He threatens to punish us.	A	B	C	D	E
8. We can decide some things in his class.	A	B	C	D	E
9. He is demanding.	A	B	C	D	E
10. He thinks we cheat.	A	B	C	D	E

NEVER				ALWAYS				
A	B	C	D	E				
11. He is willing to explain things again.					A	B	C	D	E
12. He thinks we don't know anything.					A	B	C	D	E
13. If we want something he is willing to cooperate.					A	B	C	D	E
14. His tests are hard.					A	B	C	D	E
15. He helps us with our work.					A	B	C	D	E
16. He gets angry unexpectedly.					A	B	C	D	E
17. If we have something to say he will listen.					A	B	C	D	E
18. He sympathizes with us.					A	B	C	D	E
19. He tries to make us look foolish.					A	B	C	D	E
20. His standards are very high.					A	B	C	D	E
21. We can influence him.					A	B	C	D	E
22. We need his permission before we speak.					A	B	C	D	E
23. He seems uncertain.					A	B	C	D	E
24. He looks down on us.					A	B	C	D	E
25. We have the opportunity to choose assignments which are most interesting to us.					A	B	C	D	E
26. He is unhappy.					A	B	C	D	E
27. He lets us fool around in class.					A	B	C	D	E
28. He puts us down.					A	B	C	D	E
29. He takes a personal interest in us.					A	B	C	D	E
30. He thinks we can't do things well.					A	B	C	D	E

NEVER				ALWAYS
A	B	C	D	E

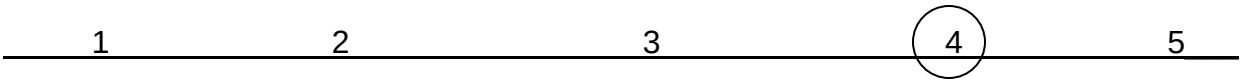
31. He explains things clearly.	A	B	C	D	E
32. He realizes when we don't understand.	A	B	C	D	E
33. He lets us get away with a lot in class.	A	B	C	D	E
34. He is hesitant.	A	B	C	D	E
35. He is friendly.	A	B	C	D	E
36. We learn a lot from him.	A	B	C	D	E
37. He is someone we can depend on.	A	B	C	D	E
38. He gets angry quickly.	A	B	C	D	E
39. He acts as if he does not know what to do.	A	B	C	D	E
40. He holds our attention.	A	B	C	D	E
41. He's too quick to correct us when we break a rule.	A	B	C	D	E
42. He lets us boss him around.	A	B	C	D	E
43. He is impatient.	A	B	C	D	E
44. He's not sure what to do when we fool around.	A	B	C	D	E
45. He knows everything that goes on in the classroom.	A	B	C	D	E
46. It's easy to make a fool out of him.	A	B	C	D	E
47. He has a sense of humor.	A	B	C	D	E
48. He allows us a lot of choice in what we study.	A	B	C	D	E
49. He gives us a lot of free time in class.	A	B	C	D	E
50. He can take a joke.	A	B	C	D	E

NEVER				ALWAYS				
A	B	C	D	E				
51. He has a bad temper.					A	B	C	D	E
52. He is a good leader.					A	B	C	D	E
53. If we don't finish our homework we're scared to go to his class.					A	B	C	D	E
54. He seems dissatisfied.					A	B	C	D	E
55. He is timid.					A	B	C	D	E
56. He is patient.					A	B	C	D	E
57. He is severe when marking papers.					A	B	C	D	E
58. He is suspicious.					A	B	C	D	E
59. It is easy to pick a fight with him.					A	B	C	D	E
60. His class is pleasant.					A	B	C	D	E
61. We are afraid of him.					A	B	C	D	E
62. He acts confidently.					A	B	C	D	E
63. He is sarcastic.					A	B	C	D	E
64. He is lenient.					A	B	C	D	E

Dissonance Between Home and School Scale

Read the questions below and circle the item that best represents how you feel.

This question is an EXAMPLE: *I like strawberry ice cream*



Not at All True Somewhat True Very True

1.	I think a lot about how my life at home is different from the home life of many of the students in this school.	1	2	3	4	5
2.	I am concerned because what's important to my parents is not always important to my teachers.	1	2	3	4	5
3.	I often think about how differently my family's viewpoint is from my teachers' viewpoint.	1	2	3	4	5
4.	I feel upset because my teacher and my parents have different ideas about what I should learn in school.	1	2	3	4	5
5.	I don't like to have my parents come to school because their ideas are very different from my teachers' ideas.	1	2	3	4	5
6.	I feel troubled because my home life and my school life are like two different worlds.	1	2	3	4	5

School Attachment Questionnaire

Directions: Please read every sentence and choose an answer that best describes how you feel. Circle one number for each question. Please be honest in your answers.

1	2	3	4	5
Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree

1. School is not the place for me.	1	2	3	4	5
2. Most teachers don't want me in their classes.	1	2	3	4	5
3. The other kids at school don't like me.	1	2	3	4	5
4. The principal is nice to me.	1	2	3	4	5
5. I talk to a lot of people at school.	1	2	3	4	5
6. There are things I like to do at school.	1	2	3	4	5
7. My teachers want me to do well in school.	1	2	3	4	5
8. People at school like me.	1	2	3	4	5
9. People notice when I miss school.	1	2	3	4	5
10. There is no one at school who cares about me.	1	2	3	4	5
11. I like some of my teachers.	1	2	3	4	5
12. I like nothing about school.	1	2	3	4	5
13. I only come to school because my parents make me.	1	2	3	4	5
14. My teachers don't like me.	1	2	3	4	5
15. No one wants to talk to me at school.	1	2	3	4	5
16. My teachers listen to me.	1	2	3	4	5
17. At school, I have people to hang out with.	1	2	3	4	5

1	2	3	4	5
Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree

18. I like school.	1	2	3	4	5
19. I care about the people at school.	1	2	3	4	5
20. No one at school likes me.	1	2	3	4	5

References

Alder, N. (2002). Interpretations of the meaning of care: Creating caring relationships in urban middle school classrooms. *Urban Education, 37,* 241-266.

Allen, B. A., & Boykin, A. W. (1992). African-American children and the educational process: Alleviating cultural discontinuity through prescriptive pedagogy. *School Psychology Review, 21*(4), 70-83.

Arunkumar, R., Midgley, C., & Urdan, T. (1999). Perceiving high or low home-school dissonance: Longitudinal effects on adolescent emotional and academic well-being. *Journal of Research on Adolescence, 9*(4), 44-466.

Baker, P. B. (2005). The impact of cultural biases on African American students' education: A review of research literature regarding race based schooling. *Education and Urban Society, 37*, 243-256.

Barber, B. K., & Olsen, J. A. (1997). Socialization in context: Connection, regulation, and autonomy in the family, school and neighborhood, and with peers*. Journal of Adolescent Research, 12*(2), 287-315.

Battin-Pearson, S., Newcomb, M. D., Abbot, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology, 92*(3), 568-582.

Bondy, E., Ross, D. D., Gallingane, C., & Hambacher, E. (2007). Creating environments of success and resilience: Culturally responsive classroom management and more. *Urban Education 42*(4), 326-348.

Booker, K. C. (2004). Exploring school belonging and academic achievement in African American adolescents. *Curriculum and Teaching Dialogue, 6*(2), 131-143.

Booker, K. C. (2007). Likeness, comfort, and tolerance: Examining African American adolescents' sense of school belonging. *The Urban Review, 39*(3), 301-317.

Brown, R., & Evans, W. P. (2002). Extracurricular activity and ethnicity: Creating greater school connection among diverse student populations. *Urban Education, 37*(1), 41-58.

Coll, R. K., Taylor, N., & Fisher, D. L. (2002). An application of the questionnaire on teacher interaction and college and university classroom environment inventory in a multicultural tertiary context. *Research in Science & Technological Education, 20*(2), 165-183.

den Brok, P., Brekelmans, M., & Wubbels, T. (2004). Interpersonal teacher behavior and student outcomes. *School Effectiveness and School Improvement, 15*(3-4), 407-442.

den Brok, P., Fisher, D., & Koul, R. (2005). The importance of teacher interpersonal behavior for secondary science students' attitudes in Kashmir. *Journal of Classroom Interaction, 40*(2), 5-19.

Diaz, J. D. (2005). School attachment among Latino youth in rural Minnesota. *Hispanic Journal of Behavioral Sciences, 27*(3), 300-318.

Dorman, J. P., Fraser, B. J., & McRobbie, C. J. (1995). Relationship between school-level and classroom-level environments in secondary schools. *Journal of Educational Administration, 35*(1), 74-91.

Faircloth, B. S., & Hamm, J. V. (2005). Sense of belonging among high school students representing 4 ethnic groups. *Journal of Youth and Adolescence, 34*(4), 293-309.

Fisher, D., & Rickards, D. (1996). Assessing teacher-student interpersonal relationships in science classes. *Australian Science Teachers Journal, 42*(3), 28-33.

Fraser, B. J. (1982). Differences between student and teacher perceptions of actual and preferred classroom learning environment. *Educational Evaluation and Policy Analysis, 4*(4), 511-519.

Fraser, B. J., & Walberg, H. J. (2005). Research on teacher-student relationships and learning environments: context, retrospect and prospect. *International Journal of Educational Research, 43*, 103-109.

Gloria, A. M., & Kurpius, S. E. (1996). The validation of the Cultural Congruity Scale and the University Environment Scale with Chicano/a students. *Hispanic Journal of Behavioral Sciences, 18*(4), 533-549.

Goodenow, C. (1993). Classroom belonging among early adolescent students. *The Journal of Early Adolescence, 13*(1), 21-43.

Gutman, L. M., & Midgley, C. (2000). The role of protective factors in supporting the academic achievement of poor African American students during the

middle school transition. *Journal of Youth and Adolescence, 29*(2), 223-248.

Gutman, L. M., Sameroff, A. J, & Eccles, J. S. (2002). The academic achievement of African American students during early adolescence: An examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology, 30*(3), 367-399.

Johnson, M. K., Crosnoe, R., & Elder, G. H. (2001). Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education, 74*(4), 318-340.

Jussim, L., & Harber, K. D. (2005). Teacher expectations and self-fulfilling prophecies: Knowns and unknowns, resolved and unresolved controversies. *Personality and Social Psychology Review, 9(*2), 131-155.

Khine, M. S., & Fisher, D. L. (2004). Teacher interaction in psychosocial learning environments: Cultural differences and their implications in science instruction. *Research in Science & Technological Education, 22*(1), 99-111.

Koul, R. B., & Fisher, D. L. (2005). Cultural background and students' perceptions of science classroom learning environment and teacher interpersonal behavior in Jammu, India. *Learning Environments Research, 8*, 195-211.

Kumar, R. (2006). Students' experiences of home-school dissonance: The role of school academic culture and perceptions of classroom goal structures. *Contemporary Educational Psychology, 31*, 253-279.

Leary, T. (1957). An interpersonal diagnosis of Personality. New York: Ronald Press Company.

LeCroy, C. W., & Krysik, J. (2008). Predictors of academic achievement and school attachment among Hispanic adolescents. *Children & Schools, 30*(4), 197-209.

Libby, H. P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *Journal of School Health, 74*(7), 274-283.

Maddox, S. J., & Prinz, R. J. (2003). School bonding in children and adolescents: Conceptualization, assessment, and associate variables. *Clinical Child and Family Psychology Review, 6*(1), 31-49.

Marcus, R. F., & Sanders-Reio, J. (2001). The influence of attachment on school completion. *School Psychology Quarterly, 16*(4), 427-444.

McNeely, C. (2005). Connect to School. What Do Children Need to Flourish? Conceptualizing and Measuring Indicators of Positive Development (pp. 289-303). Baltimore, MD: John Hopkins University.

Meece, J. L., Anderman, E. M., & Anderman, L. H. (2006). Classroom goal structure, student motivation, and academic achievement. *Annual Review of Psychology, 57*(1), 487-503.

Mertler, C. A., & Vannatta, R. A. (2005). Advanced and Multivariate Statistical Methods: Practical Application and Interpretation, Third Edition, Glendale, CA: Pyrczak Publishing.

Midgley, C., Maehr, M. L., Hruda, L. Z., Anderman, E., Anderman, L., Freeman, et al. (2000). Manual for Patterns of Adaptive Learning Scales. Dearborn, MI: University of Michigan.

Monroe, C.R., & Obidah, J. E. (2004). The influence of cultural synchronization on a teacher's perceptions of disruption: A case study of an African American middle-school classroom. *Journal of Teacher Education, 55*(3), 256-268.

Mouton, S., Dewitt, J., & Glazier, B. (1993) Assessing attachment to school in middle school students: The school attachment questionnaire. Unpublished manuscript.

Mouton, S. G., Hawkins, J., McPherson, R. H., & Copley, J. (1996). School attachment: Perspectives of low-attached high school students. *Educational Psychology, 16*(3), 297-304.

Muller, C., Katz, S. R., & Dance, L. J. (1999). Investing in teaching and learning: Dynamics of the teacher-student relationship from each actor's perspective. *Urban Education, 34*(3), 292-337.

Ogbu, J. U. (1982). Cultural discontinuities and schooling. *Anthropology and Education Quarterly, 13*, 290-307.

Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (2000). Social support networks and school outcomes: The centrality of the teacher. *Child and Adolescent Social Work Journal, 17*(3), 205-226.

Rosenthal, R. (2002). Covert communication in classrooms, clinics, courtrooms and cubicles. *American Psychologist*, *57*(11), 838-849.

Rosenthal, R., & Jacobson, L. (1968). Pygmalion in the classroom. *Teacher expectation and pupils' intellectual development* (pp. 61-71). New York, NY: Holt, Rinehart and Winston, Inc.

Sanchez, B., Colon, Y., & Esparza, P. (2005). The role of sense of belonging and gender in the academic adjustment of Latino adolescents. *Journal of Youth and Adolescence, 34*(6), 619-628.

Teven, J. J. (2001). The relationships among teacher characteristics and perceived caring. *Communication Education, 50*(2), 159-169.

Thomas, C. E., Richmond, V. P., & McCroskey, J. C. (1994). The association between immediacy and socio-communicative style. *Communication Research Reports, 11*, 107-115.

Van Ryzin, M. J., Gravely, A. A., & Roseth, C. J. (2009). Autonomy, belongingness, and engagement in school as contributors to adolescent psychological well-being. *Journal of Youth & Adolescence, 38*, 1-12.

Walberg, H. J & Anderson, G. J. (1968). Classroom climate and individual learning. *Journal of Educational Psychology, 59*, 414-419.

Way, N., Reddy, R., & Rhodes, J. (2007). Students' perceptions of school climate during the middle school years: Associations with trajectories of psychological and behavioral adjustment. *American Journal of Community Psychology, 40*, 194-213.

Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, *89*(3), 411-419.

Whitmer, M. M. (2005). The fourth R in education—Relationships. *Relationships in Education, 78*(5), 225-228.

Wubbels, T., & Brekelmans, M. (2005). Two decades of research on teacher-student relationships in class. *International Journal of Educational Research, 43*, 6-24.

Wubbels, T., Creton, H. A., & Hooymayers, H. P. (1985). Discipline problems of beginning teachers: Interactional teacher behavior mapped out. Retrieved March 6, 2009 from the ERIC database.

Wubbels, T., Levy, J., & Brekelmans, M. (1997). Paying attention to relationships. *Educational Leadership,* 54(7) 82-86.

Vita

RUBY J. STEVENS
DOB: March 5, 1962
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EDUCATION

Bachelor of Science 1991	Auburn University Business Education
Associate of Science 1982	Southern Union State Jr. College Secretarial Science

EMPLOYMENT

Prairie View A&M Univ. 2009	Assistant Director of Institutional Research
Cleveland Owens Figgs Group LCC 2006-2008	Educational Consultant
Kentucky Department of Education 2002-2006	Branch Manager, Virtual Learning Systems Consultant IT, Career & Tech. Ed. Ed. Admin. Consultant II, Career & Tech. Ed.

TEACHING EXPERIENCE

University of Kentucky 2006-2008	Graduate Research/Teaching Assistant
Fayette County Public Schools (1994-2002)	Homebound Teacher Business Teacher
Fugazzi College (1991-1994; 1998)	Instructor (Part-time)

RESEARCH EXPERIENCE

Texas A&M 2008-2009	Graduate Research Assistant (Volunteer)
University of Kentucky 2006-2008	Graduate Research/Teaching Assistant
	Project PROMISE (Proactive Research on the Mediating Indices of School Excellence)
	Examining the Link between Multicultural Education, Teaching Efficacy and Student Motivation
	Fayette County High Schools Instructional Climate Project (Partially funded by the U.S. Department of Education and Fayette County Public Schools)
	IAT (Implicit Association Task) Gender and Motivation Study

COMMUNITY WORK

Imani Family Life Ctr. (2001-2008)	Program Coordinator – Youth Achievers Program
NBNB Baptist Church (2008-Present)	Program Coordinator – Youth Achievers Program

PUBLICATIONS AND BOOK CHAPTERS

Tyler, K.M., Uqdah, A.L., Dillihunt, M.L., Beatty-Hazelbaker, R., Conner, T., Gadson , N.C. , Henchy, A.M., Hughes, T., Mulder, S., Owens, E., Roan-Belle, C., Smith, L., & Stevens, R. (2008). Cultural discontinuity: Towards the empirical inquiry of a major hypothesis in education. *Educational Researcher, 37*(5), 280-297.

Tyler, K.M., Stevens, R.J., & Uqdah, A.L. (in press). Cultural bias in teaching. In E. Anderman & L. Anderman (Ed.), *Psychology of Classroom Learning: An Encyclopedia.* Farmington Hills, MI: Thomson Gale Publishing.

CONFERENCE PRESENTATIONS

Stevens, R.J., Wright, L.B., Tyler, K., Hughes, T., Roan-Belle, C., Smith, L., Gadsen, N., McDonald, S., Mulder, S., Owens, E., & McClain-Wright, K. (2008, April). *Predictors of school attachment for African American high school juniors and seniors.* Paper presented at the Student Research Conference, Cincinnati, OH.

Mulder, S.M., Brown-Wright, L., Tyler, K.M., Owens, E., Roan-Belle, C. Smith, L. Gadson, N C., Hughes, T., Stevens, R., McClain, K., Stevens-Watkins, D. (2008, April). Qualitative study of African American college graduates: Reflections of family related factors that made the difference. Paper presented at the meeting of the University of Cincinnati Spring Research Conference, Cincinnati, OH.

Smith, R. J. (2005, July 26). *ER Procedures for TEDS.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2005, July 26). *TEDS and Perkins-Relationship Rescue.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2005, July 26). *TEDS CPR (Confidence and Power Reporting).* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2004, July 20). *The Perkins-TEDS Connection.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2004, July 20). *How to Make TEDS Work for You.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2004, July 20). *Laying Hands on TEDS.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2004, July 21). *Getting Personal with TEDS.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Smith, R. J. (2004, July 21). *TEDS Reporting for Duty.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

Dunsmore, L. B., Durham, L., Smith, R. J., & Moore, P. (2003, July 21). *Perk Up and Give Me Five.* Presented at the Annual Career and Technical Education Summer Program, Louisville, KY.

HONORS AND AWARDS

SREB (Southern Regional Education Board) Fellow, 2006-present
Leslie L. Martin Endowed Fellowship, 2008-09
Dermontti F. Dawson & Regina M. Dawson Graduate Fellowship, 2007-08
Commonwealth Incentive Award (2005-2006)

PROFESSIONAL MEMBERSHIPS, ACTIVITIES, CERTIFICATIONS

Communications Chair, Student Circle, Association of Black Psychologists, 2007-2008
Member, Lexington Area Association of Black Psychologists, 2007-Present
Member, Sisters of the Academy, 2007-Present
Member, American Education Research Association, 2007-Present
Member, American Psychological Association, 2007-Present
Member, Association of Black Psychologists, 2007-Present
Member, University of Kentucky Alumni Association, 2006-Present
Member, North American Council for Online Learning, 2005-2006
Member, Kentucky Association of Career & Technical Education, 2002-2006
Member, Kentucky Education Association, 1996-2004
Certification, Certificate of Management Fundamentals, 2004